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BALTIMORE, JUNE 5, 1913.

MILLIONS FOR TERMINAL FA- CILITIES.

The announcement by President Samuel Rea of the Pennsylvania Railroad Co. that his company proposes to spend from \$10,000,000 to \$12,000,000 to enlarge and improve its facilities in Baltimore and its suburbs is indicative of the wonderful expansion of railroad traffic. In fact, the local agent of the road says that its freight business at this point has increased 100 per cent. within the last 10 years, and it may be further remarked that there is reason to surmise that the same ratio of increase prevailed before the beginning of the decade. The company has a valuable and central location in the Calvert Station property, which is within a few minutes' walk (about four blocks) of the business center of the city, and it purposes to enlarge this immediately, besides making other great changes in its facilities on the waterfront and elsewhere. The proposed changes are now being considered by the municipal officials.

This action of the Pennsylvania is in line with the policy followed by the Baltimore & Ohio and the Western Maryland railroads in extending and otherwise increasing the capacity of their terminals at Baltimore. The first named has been bettering conditions at its principal harbor terminal for several years, and there are more extensive betterments which it has in contemplation. The Western Maryland has constructed within the last few

years a commodious terminal at tide-water in the city and is enlarging it to meet the requirements of growing traffic, as the result of its extension to a connection, yielding it freight to and from the great Pittsburgh district.

In view of these heavy expenditures by the three trunk lines entering Baltimore, it is evident that extraordinary increases in the volume of traffic handled through the port in both directions are anticipated by the companies, and they are looking ahead to be in readiness. It is also plain that the predictions of prominent and thoughtful railroad officers made a year or two ago are fast being realized, namely, that terminal facilities would demand large additions in a short time.

WEST VIRGINIA SEMI-CENTEN- NIAL.

Celebration this month by West Virginia centering at Wheeling, but State-wide in its scope, of 50 years of Statehood will attract attention to the remarkable progress made in half a century. It is impossible to compare statistically West Virginia in 1913 with the portion of Virginia which constituted West Virginia in 1863. But the progress in that period is indicated in comparing, as in the accompanying table, the whole of Virginia of 1860 and West Virginia of this year. This shows that on the main lines of material development West Virginia is far ahead of the Old Dominion of 50 years ago.

	Virginia, 1860.	West Virginia, 1913.
Land area, sq. mi....	64,284	24,022
Population.....	1,596,318	1,335,000
Manufactures:		
Capital.....	\$26,640,000	\$175,000,000
Products.....	\$51,300,000	\$195,000,000
Banks:		
Capital.....	\$16,005,156	\$9,760,000
Deposits.....	\$7,729,652	\$51,815,650
Property, value.....	\$793,249,681	\$1,200,000,000
Grain, bushels:		
Wheat.....	13,129,180	3,262,000
Corn.....	38,360,704	24,370,000
Oats.....	10,184,865	3,068,000
Live stock:		
Cattle.....	946,323	561,000
Sheep.....	1,042,946	838,000
Swine.....	1,589,519	363,000
Improved farm lands, acres.....	11,435,954	5,482,000
Farm lands, build- ings, value.....	\$371,761,661	\$262,458,000
Railroad mileage.....	1,771	3,937
Mineral products, value.....	\$250,000	\$106,000,000
Coal mined, tons.....	473,360	66,700,000
*National banks only.		

West Virginia has a population averaging 55.5 to the square mile, which is more than twice the density of Virginia's population in 1860. Compared with the earlier Virginia, West Virginia has more than six times the amount of capital invested in manufacturing, and the value of its manufactured products is more than three times as great; it has a greater proportionate area of improved farm lands and a greater proportionate value of farm lands and improvements; it has more

than twice as many miles of railroad lines, and the value of its mineral production, suggested by the amount of coal mined annually, is far greater. The total banking capital of all kinds in Virginia in 1860 was \$16,005,156, and the amount of bank deposits was \$7,729,652. In 1913 the capital invested in West Virginia in National banks alone is \$9,760,000, and the amount of individual deposits in National banks is \$51,815,650, and in financial institutions of all kinds \$113,887,205.

Since 1880 the population of West Virginia has more than doubled, increasing from 618,457 to 1,335,000; its manufacturing capital has increased from \$13,883,000 to \$175,000,000, and the value of its manufactured products from \$22,867,000 to \$195,000,000; the value of its farm products from \$19,360,000 to \$99,828,000; the value of its forest products from \$4,053,000 to \$39,979,000, and the value of its mineral products from \$2,485,000 to \$106,000,000.

More and more the agricultural potentialities of the State are being appreciated and realized, its three well-defined divisions offering opportunities for the growing of grains, grasses, fruit, truck and tobacco, cattle raising and dairying. But the most marked development to date has been in the mineral districts, though in some respects only a beginning has been made there. More than half of the State is underlaid with coal beds, which contained originally 150,000,000,000 tons of coal, of which less than 1 per cent. has been mined. The State's coal area of 17,000 square miles is 5000 square miles greater than the coal area of Great Britain. At the rate at which coal was mined in the State last year, 66,700,000 tons, which was about 50 per cent. more than the total bituminous coal output of the whole country in 1880, West Virginia's coal supply would last 2500 years. It ranks second in coal production among the States and first in the production of natural gas, its output in 1911 having been 207,112,576,000 cubic feet, much of which is piped to other States for use for lighting, power and fuel, although a number of cities in the State, such as Wheeling, Wellsburg, Sistersville, Morgantown, Fairmont, Clarksburg, Grafton, Parkersburg, Huntington and Charleston, are also using it for lighting and for power and in the development of such industries as pottery, glass making, lampblack, etc. The Appalachian streams of the State have capacity for vast hydro-electric development, and many millions of dollars have already been invested in that direction. Many other millions will be invested directly in such development and in the upbuilding of diversified manufacturing industries as the State advances farther from the stage in which great attention is given to primary utilization of mineral, timber and agricultural resources.

The celebration set for June 20 is bound to emphasize the facts which

have here been briefly sketched, and it should give a marked impetus to the growth of West Virginia on all lines.

BAD PRECEDENTS IN FISCAL LEGISLATION.

In theory Government is essentially the administration of the business of the nation. Every radical change in the form of Government is, therefore, of profound interest in its bearing upon the conduct of the public business as affecting material affairs. Within less than six months has been completed the ratification of two amendments to the Constitution, one of them permitting the levying of an income tax directly by the Federal Government and without regard to apportionment among the States according to population, and the other providing for the election of members of the United States Senate directly by the people. The latest amendment is, in effect, virtually the elimination of one of the checks designed by the framers of the Constitution to prevent the crystallization of passing popular emotions into permanent law. It makes wide the way for other amendments destructive of remaining checks upon mere majority rule, or even minority rule. The ease with which it became lawful for Congress to impose an income tax and for the whole theory of the province of the upper house of Congress to be destroyed indicates how easy, in the prevailing fluidity of the political mind of the country, it will be to amend the Constitution further making possible additional amendments by a minority of the voters. The circumstances of pending legislation in Congress suggest how readily rule by the minority may carry the country far into the zone of danger to its people and its material interests.

Proponents of the tariff-income tax bill now being considered in the Congress have already so accustomed themselves to the fundamental fact involved in a constitutional system permitting rule by the minority that they have persuaded themselves into a belief that action at the polls by a minority of the voters is a mandate or edict from the American people. In its issue of May 29 the MANUFACTURERS RECORD commented upon this dangerous delusion upon which is predicated the attempt to revolutionize in short order the fiscal policy of the country, involving a plan of taxation bordering closely upon utter confusion.

The 1912 Congressional elections placed in the House of Representatives 291 men elected as Democrats, a big majority of the 435 members of that body. But not only was a large number of the majority members chosen by a minority of the voters in their respective districts, but the aggregate 291 majority membership was chosen by a small aggregate minority, less than one-third, of the voters of the country, representing inferentially less than one-fourth of the population of the country.

In the accompanying table the effort has been made to set forth as reliably as possible the figures by States illustrating this remarkable situation.

The Congressional Vote of 1912.

State.	Congressmen.		Population, 1910.		Vote, 1912.		Elected Democrats.
	To-Total.	Democrat.	Total.	In Democratic districts.	Total.	Democrat.	
Ala.	10	10	2,138,093	2,138,093	110,835	93,483	93,483
Ark.	7	7	1,574,449	1,574,449	116,135	89,718	89,718
Cal.	11	3	2,377,549	567,148	633,629	206,670	71,001
Colo.	4	4	799,024	799,024	254,384	117,775	117,775
Conn.	5	5	1,114,756	1,114,756	175,933	76,148	76,148
Del.	1	1	202,322	202,322	47,547	22,485	22,485
Fla.	4	4	752,619	752,619	44,324	36,092	36,092
Ga.	12	12	2,609,121	2,609,121	116,192	116,192	116,192
Idaho	2	..	325,594	.....	84,430	30,140	.....
Ill.	27	20	5,638,591	4,073,544	1,092,688	428,511	415,386
Ind.	13	13	2,700,876	2,700,876	640,833	291,288	291,288
Iowa	11	3	2,224,771	601,175	402,336	171,950	59,139
Kans.	8	5	1,690,949	1,067,589	350,499	163,949	108,712
Ky.	11	9	2,280,905	1,898,546	400,559	210,685	171,510
La.	8	8	1,656,388	1,656,388	65,618	62,776	62,776
Me.	4	1	742,371	180,968	141,664	66,894	18,077
Md.	6	6	1,295,346	1,295,346	180,074	107,614	107,614
Mass.	16	8	3,366,416	1,682,864	469,656	196,819	106,212
Mich.	13	2	2,810,173	569,821	533,947	164,115	39,334
Minn.	10	1	2,075,708	172,202	310,563	76,001	14,718
Miss.	8	8	1,797,114	1,797,114	44,260	43,958	43,958
Mo.	16	14	3,293,335	2,727,556	668,685	337,702	295,226
Mont.	2	2	376,053	376,053	73,013	25,219	25,219
Neb.	6	3	1,192,214	587,940	250,004	113,865	59,534
Nev.	1	..	81,875	.....	16,752	7,311	.....
N. H.	2	2	430,572	430,572	82,274	40,682	40,682
N. J.	12	11	2,537,167	2,330,771	337,439	169,350	156,180
N. M.	1	1	327,301	327,301	48,566	22,139	22,139
N. Y.	43	31	9,113,614	6,567,286	1,517,709	634,471	455,009
N. C.	10	10	2,206,287	2,206,287	225,887	149,569	149,569
N. Dak.	3	..	577,056	.....	96,202	24,341	.....
Ohio	22	19	4,767,121	4,247,397	967,732	458,460	400,771
Okl.	8	6	1,657,155	1,072,022	250,278	122,870	121,289
Ore.	3	..	672,765	.....	129,910	35,285	.....
Pa.	36	12	7,665,111	3,083,276	1,110,653	397,957	207,740
R. I.	3	2	542,610	355,963	74,888	33,626	23,785
S. C.	7	7	1,515,400	1,515,400	46,488	46,298	46,298
S. Dak.	3	..	583,888	.....	114,724	44,577	.....
Tenn.	10	8	2,184,789	1,690,598	226,329	138,111	93,688
Tex.	18	18	3,896,542	3,896,542	304,605	226,319	226,319
Utah	2	..	373,351	.....	110,986	36,916	.....
Vt.	2	..	355,956	.....	55,063	23,649	.....
Va.	10	9	2,061,612	1,796,045	134,821	99,053	85,196
Wash.	5	..	1,141,990	.....	298,275	74,911	.....
W. Va.	6	2	1,221,119	473,078	250,761	121,597	48,163
Wis.	11	3	2,333,860	635,692	358,419	126,342	54,250
Wyo.	1	..	145,965	.....	41,204	14,720	.....
Total	435	291	91,641,197	61,948,098	14,031,318	6,300,992	4,593,064

In the Congressional election of 1912 the total vote was 14,031,318, of which 6,300,992 were cast for Democratic candidates. The successful 291 Democratic candidates received 4,593,064 votes, or 32.7 per cent. of the total Congressional vote and 72.7 per cent. of the Democratic Congressional vote. Democratic Congressmen were elected from 39 of the 48 States, but their membership in the House represents a majority of the Congressmen elected in only 29 States, the representation in two other States being equally divided between the Democrats and the opposition. In only 11 States—Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Texas and Virginia—did the Democratic candidates obtain a majority of the Congressional votes. Their aggregate number from those States was 99, representing an aggregate of 1,057,215 votes, or an average of 10,679 votes for each member, while the other 192 members from other States of the country received an aggregate of 3,535,849 votes, or an average of 18,416 votes for each member.

In 28 States—Arizona, California, Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky,

Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma,

Pennsylvania, Rhode Island, Tennessee,

West Virginia and Wisconsin—each having one or more Democratic Congressmen, the vote for successful Democratic candidates was a minority of the total vote, and the same thing is true as to Idaho, Nevada, North Dakota, Oregon, South Dakota, Utah, Vermont, Washington and Wyoming, which elected no Democratic Congressmen. The population of the 48 States in 1910 was 91,641,197. Of that total, 61,948,098 were in the districts which sent the 291 Democrats to Congress and which polled 4,593,064 votes for such members. But those votes were but 32.7 per cent. of the total Congressional votes, representing a population of 91,641,197. In like proportion the population represented by the 291 Democratic members elected by 4,593,064 votes was 32.7 per cent. of the population of 61,948,098 in the districts having one or more Democratic Congressmen, or a total of 20,380,924. It is still happily the American habit to acquiesce in the result of an election fairly conducted as far as the choice of Congressmen or other officials is concerned. But it is straining an important fact to argue that such acquiescence is an endorsement of the plat-

form of successful candidates or a vindication in advance of any policy they may attempt to inaugurate while temporarily in power. There is absolutely nothing in the popular vote for the present majority in Congress to justify a belief that that majority has any special commission from the majority of the American people, or to countenance legislation by that majority upon lines which were not even discussed in the campaign.

Real political statesmanship in such a situation as that presented in the present Congress, with its background of the remarkable campaign of 1912, would not undertake to go beyond the principles for which it stood in the campaign, but would seek, in knowledge and wisdom and in full appreciation of its responsibilities to the country, so to legislate for the welfare of all, without an eye to mere party success, as to attract the voters to it and to change legitimately its minority support into a healthy majority. It would not attempt to make a record for briefness of time in legislation, regardless of the character of the legislation, but would seek to perfect sound legislation, regardless of the time necessarily consumed.

Methods of furthering tariff legislation of the past 20 years have been imperfect and questionable. Their climax has been reached in the revision under way.

The attitude assumed toward critics of the tariff-income tax bill, involving an implication that efforts to modify a strictly party measure forced through under caucus pressure barring material amendment in the House are manifestations of purely selfish instincts, and the general air of infallibility unjustified by the character of the bill, all these combine to strengthen determination to neglect no proper means of influencing action upon the bill in its remaining history in Congress.

At the time that editorial was written the South had begun to give promise of the strong position it now occupies. Here and there a beginning had been made in technical training, but the call to qualified young men of the South had never been stronger. Now no Southern State is without some form of technical training, and several technological institutions, like that of Georgia, have attained a high standard of efficiency; but with all its progress the South has much more to achieve, and with its equipment for technical training the supply of the technically trained is by no means equal to the opportunities presented to them. There is a call for a strengthening and an enlargement of the facilities of the technical institutions and a like call for the encouragement by successful men of the South of young men to fit themselves for technical careers in the South. It may not be that every Southern State shall at some time in the future have an institution equal to the Georgia School of Technology, but at more than one point there is developing some such institution, and it is not unlikely that one of the existing institutions will become a center of technological training unsurpassed by any other in the world.

Attention is directed to the growing use of electricity in connection with the operation of railroads by the fact that the Norfolk & Western Railway Co. is considering plans for the electrification of that part of its main line between Vivian and Bluefield, W. Va., thirty miles, and the erection of a large power plant to furnish the current which will be required for the use of electric locomotives. More and more, year by year, electricity is performing a greater part in the railroad practice of the world, and the time seems to be fast approaching when a considerable part of the

TECHNICAL TRAINING IN THE SOUTH.

The Georgia School of Technology is celebrating this week the twenty-fifth anniversary of its founding, and the event not only will be the occasion for a review of the wonderful progress made by that institution itself, but will be a marker of the advance of technical education in the South generally. The beginnings of the institution were in a little workshop in a log cabin at Oxford, Ga., where Dr. Isaac S. Hopkins, then a professor in Emory College, began to train a few boys in toolcraft. Now, at Atlanta, the institution has a group of 16 splendid buildings upon a tract of 25 acres and valued at \$800,000. Between 600 and 700 students, representing 27 States and some foreign countries, attend its courses, and it has a faculty of 65 persons. The curriculum is essentially practical, and its graduates are found among the mechanical engineers, the electrical engineers, the civil engineers, the textile engineers, the chemists, the architects and other technically-trained men active in upbuilding the South. When, in the summer of 1885, a bill was introduced into the Georgia Legislature providing for the establishment of this school of technology, the MANUFACTURERS RECORD said:

The necessity for such a school is so great, not only in Georgia, but in every Southern State, that there ought to be no opposition whatever to this measure. The importance to the South of technical schools can hardly

be overestimated. There are thousands and tens of thousands of boys and young men in that section needing the advantages of the technical education that would gladly avail themselves of the opportunity of preparing to take an active part in the great industrial revolution now in progress throughout the Southern States.

The South has entered upon an era of tremendous industrial development, and to the man fitted by education for work in this line she offers the most promising field to be found in America. Where are the men to come from who are to be the movers in this great manufacturing, mining and railroad progress? Certainly not from the South, except to a limited extent, unless the proper training can be had there. It ought to be a source of the greatest rejoicing on the part of everyone interested in the improvement and advancement of the South that, through the increase in the industrial interest, a new field of profitable employment is being opened to thousands of young men who would otherwise be almost forced to leave their own country and seek their fortunes in the North or West, where wide diversity of employments offers a chance to everyone able and willing to work. Instead of being limited in their choice of occupations to farming, merchandising, or to a professional life, as has to a large extent been the case with Southern young men who remained at home, there are now opened to them many chances of success in industrial matters.

That the young men of the South may be able to improve these opportunities, a thorough technical education is essential. This they must be able to secure in their own States. No better work for the improvement of the South and its people can be pushed forward than the establishment of schools where this training can be obtained. Georgia, the Empire State of the South, cannot afford to neglect this vitally important matter. The welfare of her people and the growth of the State in education, wealth, population, and in everything that combines to make a country prosperous and great, are involved in this matter.

At the time that editorial was written the South had begun to give promise of the strong position it now occupies. Here and there a beginning had been made in technical training, but the call to qualified young men of the South had never been stronger. Now no Southern State is without some form of technical training, and several technological institutions, like that of Georgia, have attained a high standard of efficiency; but with all its progress the South has much more to achieve, and with its equipment for technical training the supply of the technically trained is by no means equal to the opportunities presented to them. There is a call for a strengthening and an enlargement of the facilities of the technical institutions and a like call for the encouragement by successful men of the South of young men to fit themselves for technical careers in the South. It may not be that every Southern State shall at some time in the future have an institution equal to the Georgia School of Technology, but at more than one point there is developing some such institution, and it is not unlikely that one of the existing institutions will become a center of technological training unsurpassed by any other in the world.

ELECTRICITY IN RAILROAD OPERATION.

Attention is directed to the growing use of electricity in connection with the operation of railroads by the fact that the Norfolk & Western Railway Co. is considering plans for the electrification of that part of its main line between Vivian and Bluefield, W. Va., thirty miles, and the erection of a large power plant to furnish the current which will be required for the use of electric locomotives. More and more, year by year, electricity is performing a greater part in the railroad practice of the world, and the time seems to be fast approaching when a considerable part of the

traffic will be moved over long distances by electric power, but there are so many other and more pressing betterments demanded by the railroads that the companies generally will not probably go into the subject of changing motive power upon any considerable scale for a long time.

In the use of the electric telegraph for dispatching trains the mysterious force found its first application to railroad purposes, the current required for the operation of the instruments being produced by chemical action. For years this was the only way in which electricity was used by railroad companies, but by degrees it was applied to other uses, until now the lighting of stations, yards and trains, the operation of signals, the ringing of warning bells, call bells, etc., the operation of telephones (which are largely taking the place of the magnetic telegraph for train dispatching) and the movement of sundry trains are all accomplished by means of the strange force which none can see, but which affords a power at the instant command of man the like of which was never witnessed. Of course, the production of electricity by the dissolution of chemicals in contact with metallic substances would not be suitable to the work that is now done by the running of generators of immense power and capacity, and the use of the old methods of obtaining current have long been abandoned by large users of electricity, generators of suitable capacity being installed for the various requirements, these being operated in many instances by electricity from other sources of production.

The Baltimore & Ohio Railroad was the pioneer in the use of electric locomotives for heavy traffic in this country, if not in the world. In 1895 the company abandoned the use of its ferry service at Baltimore for passenger traffic and soon thereafter began the use of electric locomotives for freight service through the Belt Line tunnel, finally employing the engines also for hauling passenger trains through the tube. Since then the use of electric locomotives has considerably extended, notably at the Grand Central Terminal, the Pennsylvania Terminal and other points in New York city and elsewhere under conditions which would be unsuitable for the use of steam locomotives. The high-speed interurban electric railway car is also a development since the first electric locomotives ran in Baltimore, and in several instances railroads have entirely abandoned steam locomotives for the use of electric cars. This is notably the case between Baltimore and Annapolis, where there are two lines, both formerly operated by steam and now both using electricity. The conversion of one of the Pennsylvania Railroad Co.'s lines between Camden and Atlantic City to electric operation is another conspicuous instance of a steam line adopting the new motive power, and there are sundry other lines now using electricity where steam motive power was formerly employed, besides large numbers of interurban roads.

But it is the extension of the use of electricity upon the large steam railroads that is most indicative of the future as regards motive power. Thoughtful and experienced railroad managers realize that in all probability steam locomotives will be gradually displaced by electric motors for moving both passenger and freight trains. Cleanliness, stability, great power, capacity for

quickly attaining full speed and other valuable characteristics distinguish the electric locomotive as superior to the steam locomotive, notwithstanding the many improvements which have been made to the latter of late years, and if it were economically practicable, no doubt several of our great trunk lines would set about the installation of electric motive power upon their busy divisions without delay. As things are, they will necessarily be obliged to acquire the new method of moving trains slowly and in such manner as their financial requirements will permit.

INDUSTRIAL ACTIVITIES SOUTH.

In May there were published by the Construction Department of the MANUFACTURERS RECORD 6394 items relating to industrial development, building operations, railroad construction, financial and general business interests in the South and Southwest. For the preceding four months of January, February, March and April, 20,937 items were previously summarized, thus making a total up to June 1 of 27,331 items. Under appropriate headings, the May items are summarized in the following table:

Industrial and Developmental.	
Bridges, Culverts, Viaducts.....	101
Canning and Packing Plants.....	29
Clayworking Plants.....	24
Coal Mines and Coke Ovens.....	48
Concrete and Cement Plants.....	7
Cotton Compresses and Gins.....	27
Cottonseed-oil Mills.....	26
Drainage and Irrigation.....	142
Electric Plants.....	14
Fertilizer Factories.....	13
Flour, Feed and Meal Mills.....	21
Foundry and Machine Plants.....	39
Gas and Oil Enterprises.....	140
Ice and Cold Storage Plants.....	47
Iron and Steel Plants.....	5
Land Developments.....	122
Lumber Manufacturing.....	92
Metal-working Plants.....	8
Mining.....	43
Miscellaneous Construction.....	48
Miscellaneous Enterprises.....	123
Miscellaneous Factories.....	213
Motors and Garages.....	53
Railway Shops, Roundhouses, Terminals, etc.....	15
Road and Street Work.....	291
Sewer Construction.....	23
Telephone Systems.....	26
Textile Mills.....	36
Water-power Developments.....	30
Water-works.....	131
Woodworking Plants.....	52
Buildings.	
Apartment-houses.....	195
Association and Fraternal.....	67
Bank and Office.....	119
Churches.....	147
City and County.....	84
Courthouses.....	35
Dwellings.....	678
Government and State.....	44
Hotels.....	80
Miscellaneous.....	97
Railway Stations, Sheds, etc.....	44
Schools.....	313
Stores.....	356
Theaters.....	45
Warehouses.....	77
Railroad Construction.	
Railways.....	191
Street Railways.....	36
Financial.	
Corporations.....	214
New Securities.....	531
Burned, etc.....	5,452
Machinery, Proposals and Supplies	271
Wanted.....	671
Total for May.....	6,394
Previously detailed since January 1.....	20,937
Total to June 1.....	27,331

Iron and Steel Plates and Sheets.

The production of iron and steel plates and sheets in 1912, excluding mail plate and skelp, according to the Bureau of Statistics of the American Iron and Steel Institute, amounted to 5,875,080 tons, an increase of 1,387,031 tons over 1911. The States which rolled iron or steel plates in 1912 in the order of their prominence were Pennsylvania, Ohio, Illinois, Indiana, New York, Alabama, West Virginia, Wisconsin, Kentucky, New Jersey and Massachusetts, and the States which rolled sheets in 1912 in the order of their prominence were Pennsylvania, Ohio, West Virginia, Indiana, Illinois, Kentucky, New York, Massachusetts, Delaware, Maryland and Missouri.

Frisco's University Courses

ACTIVITIES OF THE RAILROAD'S DEPARTMENT OF DEVELOPMENT FOR FACTORIES AND FARMS.

[Editorial Correspondence Manufacturers Record.]

Tulsa, Okla., May 31.

With the plants completed, those under construction and those for the removal of which from other fields contracts have been made, there will be in operation on the Frisco lines in Oklahoma by June 1, 1914, some 14 or 15 glass plants, representing an investment of more than \$1,500,000.

This development of an industry practically new, or at least all brought about within the last two or three years, largely by the work of the Frisco Railroad, is indicative of the way in which that line is developing its territory. These facts as to the glass industry, mentioned in the MANUFACTURERS RECORD of May 29, have suggested a study of the Frisco's system of working for the development of its territory.

The solicitation of traffic in competition with other roads is one thing; the creation of traffic by the development of industries at local points is another and much better thing. In the former case, the soliciting of freight is always in active rivalry with other roads; in the latter case, the creation of freight by the establishment of new industries at local points develops a permanent traffic without danger of its being captured by competitors.

The Frisco road in its work in Oklahoma, in Texas and in Missouri has demonstrated that its directors and officers have a proper conception of what the creation of freight and passenger traffic means by adequate development work, and they have had the judgment to make their industrial and immigration work something more than a mere bureau. At the beginning of the present year they merged what was known as the industrial department and the immigration department into a new department entitled the "Department of Development." The name itself suggests its character and indicates the judgment of the men responsible for its establishment. There has now been added to the industrial and immigration work of this department a bureau of agriculture.

The head of the Department of Development is Frank Anderson, who has long been identified with the Frisco system in industrial work.

Unlike the system that prevails on many railroads where the industrial and immigration work is not adequately organized, this department is supreme in its own field. It reports only to the president. All matters pertaining to switches or short branch tracks for new enterprises are decided by this department without the long and vexatious delays which are often found elsewhere. Thus the men who are creating freight by the development of new manufacturing enterprises are in a position to talk officially as to the facilities that will be provided and how quickly they will be built.

Another point of interest in connection with this work is that the policy prevails on the Frisco lines that in the event of car shortage the road takes care of the industry which has no other line of transportation in preference whenever necessary to an industry which can ship by other lines. It is not the policy of the road to take the position that it must give the best facilities at competitive points; on the contrary, it seeks to give the best facilities at points on its line at which there is no competition. This has resulted in securing the establishment of

many manufacturing enterprises at purely local points, which, under other conditions, would not have located at any place where they did not have competitive roads.

Another policy of the Frisco is interesting and is being closely watched by railroad people everywhere. Under this system the local agent is a general agent, representing every interest of the road. He is empowered to act for the road in the settlement of claims for damages, and he gets the credit for all business developed in his territory. The local agents everywhere, therefore, become the direct representatives of the road, and the people in his community know that they do not have to wait for settlement weeks and months in filing claims for damages, but that immediate settlement for just claims can be had anywhere by presenting it to the local agent. The customers of the road are thus brought into close and immediate touch with the road, and every local agent, feeling a sense of responsibility for all business and knowing that he will get credit for its development, becomes an enthusiastic worker for the road. The result is that the Frisco system is winning the favor and the enthusiastic support of the people along its lines. It is, moreover, receiving strong praise from men of affairs throughout Oklahoma for its very broad policy of development work.

In securing the location of the many glass works that are now being built along its line, it has pursued an aggressive policy. Its industrial agents have visited some of the plants which are being transferred from Kansas and Indiana as often as 30 or 40 times in a year to present to them the advantages of the Oklahoma field. When once they have awakened an interest in the question of removal, the owners of the plants are brought into communication with the various commercial organizations along the line. Every advantage is given to the manufacturer who is thinking of moving and to the towns along the road of coming together in an investigation on the part of the manufacturer of the advantages of different points and on the part of the commercial organizations in these towns and cities of the soundness of the proposition. So broad a work as is being done could not be carried out except by a department amply backed financially by the management of the road and with full authority to do things.

The Department of Development is now so organized as to cover a very broad work, including industrial, agricultural and immigration interests.

Under the industrial section work is carried on, under the supervision of the director of development, by industrial agents with headquarters at St. Louis, except for the South Texas lines, and for the latter there is an office at Houston in charge of the industrial agent, who also in that section handles immigration.

In addition to securing industries in the regular way, the company has made an inventory of its territory with a view to developing it industrially by the establishment of such lines of industries as its territory is best adapted to. The first efforts in this direction were to create a great glass industry along its lines in the Oklahoma glass belt. As a direct result of one year's work there are now seven plants in operation along this road, and

five more under construction, while several others are under contract to be established.

In addition to the advantages of natural gas at many points at three cents per thousand feet, the company has brought about a development at Hickory, Okla., of a glass-sand industry of exceptional quality. This sand can reach all of the plants along the line with not to exceed a 100-mile haul.

Much attention has also been given to the coal industry in order that an ample supply of coal may give to the people using gas a feeling of safety as to the future, when the time comes that the gas will be unequal to the demand, though the best experts estimate that that will be many years in the distance.

Owing to the scarcity of wooden box-making material, it is believed that the strawboard industry will shortly be one of the important industries of the Southwest, for there the raw materials are produced in abundance. The Frisco people are turning their attention to this, and expect within the next two years to have the strawboard industry fairly well developed along their lines.

In the immigration work the Department of Development includes the following: Horticulturist, entomologist, animal husbandry representative, dairying, manager of demonstration farms, and local farm demonstrators. All of these report direct to the supervisor of agriculture.

All agricultural representatives, except the local farm demonstrators, cover the entire system. The local farm demonstrators are located in defined territories, and have an average of 25 demonstration farms under their supervision. These farms vary in size from 5 to 20 acres. The work on them is done by the farmer owning the land under the supervision of the Frisco demonstrators, who visit them semi-monthly. The company furnishes free all the seed used on these farms in order to insure the planting of nothing but the best grades of seeds. The farmer gets the benefit of all of this work and these seeds without cost, and receives all the profit from the crops. At the proper time in the fall the matured seeds are gathered in the fields of all the best crops, under the direction of these farm demonstrators, and are cleaned and tested by the railroad company and are neatly packed ready for distribution to new demonstration farms the following year. In addition to the seed which the company utilizes in this way, these demonstration farmers have a supply of high-grade seed carefully selected and graded to sell to other farmers throughout their territory. It is the aim of the road in this work to have its territory supplied with well-bred seeds of all kinds within a period of two or three years.

The company's horticultural representative selects demonstration plats of several acres in various orchards along its line. The trees on these plats are pruned, sprayed and cultivated under the direction of this horticultural expert. The company also is making special effort to secure the proper grading and packing of fruit for market, and during the present season will conduct packing schools under the direction of its representatives at the various fruit-producing points in its territory.

The dairy representative conducts demonstrations with dairy herds at various points, in addition to instructing farmers in respect to the best feed crops for dairy purposes; the use of silos; the proper preparation of the feed, and likewise breeding of cattle for dairy purposes.

The demonstration farm work is being so vigorously pushed that during 1914

the company expects to conduct 400 of these farms, in addition to its work for boys' corn clubs and cotton clubs.

In the South Texas country tributary to this road, where such remarkable progress has been made in trucking, the company maintains an organization in charge of a local director of agriculture, with headquarters at Kingsville. The work under his immediate direction is carried out in the same manner as on the company's Northern lines, except that truck growing and intensified farming occupy a more important place than elsewhere.

On this line between Houston, Tex., and Brownsville there is a harvest of some crop which moves to market every month in the year. The magnitude of this can be seen in the fact that between December 1 and May 15, in a region which has been almost wholly developed within the last few years, about 4700 carloads of vegetables were moved from the Rio Grande Valley alone. The yield of crops for 1913 in that section is estimated at almost 200 per cent. over 1912.

In the immigration work, which is a part of the Department of Development, and is handled by a general immigration agent supplemented by traveling immigration agents, some changes from usual methods have been adopted. In the solicitation of immigration the company has gotten entirely away from the custom of considering this from the standpoint of the passenger railroad, and handles it after the manner in which it is working for the establishment of industries. It first determines, by thorough investigation, the agricultural potentialities at various points along its line, and then undertakes to secure farmers from such sections as are best adapted to these varying conditions. Its first consideration is to have the new settler make a success, and with a view to helping him the services of the agricultural experts employed by the company are at his disposal without cost. It is the business of the local farm demonstrators to get in touch with the newcomer and advise him fully with respect to the possibility of the section in which he has located and the things he should do to take advantage of them.

These demonstrators advise the newcomer with respect to the crops best adapted to his locality and the best method of their cultivation, and by being constantly on the ground are able to assist him in a manner to make his farming operations profitable.

The company would rather locate one intelligent man and show him how to make a success than to get a hundred men unfitted for any particular locality or for the work in which they might engage.

The Department of Development now employs about 50 men, but it is expected that this number will be increased by at least 50 per cent. by the middle of the summer.

The splendid progress which is being made in the development of agriculture, in the establishment of industries and in the better handling of the finished product of the farm and factory, is indicative of the results which are following so broad a policy as is here outlined.

The MANUFACTURERS RECORD has repeatedly said that the industrial and immigration bureaus of Southern railroads ought to be regarded with such importance that the leaders of this work should be made vice-presidents, or some rank of equal importance, with authority to act on their own initiative and responsibility. The Frisco road has gone one better, and while the head of its Department of Development does not bear the title of vice-

president, his responsibility and his work really outrank that of most vice-presidents.

The financial difficulties which have come upon the Frisco within the last few days are unfortunate, but it will be fortunate for the road and its stockholders and the country tributary to it if the financiers who are responsible for shaping its finances continue the same broad policy of the officers who have created this Department of Development, and who, in its creation, have laid the foundation for a vast increase in traffic and who have put the road in proper touch with people along its lines and brought about a friendliness that does not exist along the lines of many other railroads. R. H. E.

Texas Crop Outlook.

[Special Cor. Manufacturers Record.]
Houston, Tex., May 26.

Reports from the commercial organizations, railroad officials and others who have taken pains to inform themselves by trips through the State, and information from various sections, indicate that never in the history of Texas will there be such universal and all around bumper crops as in 1913, if anything like present indications are realized. At current prices, and taking present conditions of crops as a basis of calculation, it is figured that the total crop values of Texas for the current year will amount to more than \$700,000,000. On the basis of 5,000,000 population, which is perhaps somewhat in excess of the actual number, this would mean a return in new wealth of \$140 for every man, woman and child in Texas. It is a sum total so far ahead of the value of the crops that any State in the Union has ever had so far that unquestionably it will arouse great renewed attention in the agricultural possibilities of the great Empire State of Texas.

It is estimated that the corn crop of Texas will amount to more than 200,000,000 bushels. There have been most excellent rains all through the Panhandle and in the Range and the forage raising sections of the State, so that alfalfa, kaffir corn, hay and other stock feed promise most excellent crops, with the result that the outlook for the livestock interests in the State is particularly bright.

A cotton crop of 5,000,000 bales is being prophesied, and there are prospects of abundant harvests of rice, sugar-cane and all of the agricultural products which the various sections of Texas produce.

Based on this outlook, the railroads, industries and commercial men of Texas are looking forward to a record-breaking season during the coming fall and winter.

ALBERT PHENIS.

Underground Water in Texas.

The United States Geological Survey has just announced the publication of a report on the underground waters of the Wichita region of north-central Texas by C. H. Gordon. The region covered by the report includes about 11,000 square miles. Its population practically doubled in the decade between 1900 and 1910. The settlers have experienced great difficulty in obtaining satisfactory water for domestic use, and the region now depends for its water supply almost wholly on the surface waters, which are insufficient, so that the problem of finding underground sources of potable water in sufficient quantities is of great local importance. The field investigations of the Geological Survey were directed to the determination of the geologic conditions which would lead to the location of the water-bearing formations that might be available sources of water. This has been accomplished.

The report, which comprises 86 pages and includes a geologic map, describes the geologic formations underlying the region, their water-bearing capacity, and the underground water prospects. Abundant supplies of underground water have been determined, but the water from most of the formations is stated to be heavily charged with mineral matter. From certain of the formations, however, the water is of good quality, and the area over which these formations extend is outlined in the report. Advice is also given in regard to the protection of shallow wells from the germs of typhoid fever and the purification of surface waters in the localities where no satisfactory underground water exists.

This report, which is published as Water-Supply Paper 317, can be obtained free of charge on application to the Director, United States Geological Survey, Washington, D. C.

To Remove Surplus Lint.

L. E. Miller, 304 Empire Building, Oklahoma City, writes to the MANUFACTURERS RECORD as follows:

"I am interested in a machine designed to remove the surplus lint from cottonseed after it has been through the gin. By this process the seed will be entirely cleaned without damage. Would like to know if there is a demand among cotton farmers for a machine of this kind to be sold at a very moderate price. Also if clean seed has any advantage over the seed as usually planted in the manner in which it will germinate and grow. Also if there is a paper or magazine circulating among cotton farmers that is a strictly cotton farmers' journal."

Barge Service to Begin.

A report from New Orleans says that the Alabama & New Orleans Transportation Co. will immediately begin its proposed barge service between that city and Alabama points, including Mobile, Jackson, Demopolis, Eutaw and Tuscaloosa. This will be conducted by self-propelled steel barges, each 240 feet long, 32 feet wide and of 1000 tons capacity. There will be a 10-day schedule at first. J. H. Bernhard is vice-president and general manager.

The West Virginia Geological Survey, at Morgantown, Dr. I. C. White, State geologist, has issued a new edition of "Coal, Oil, Gas, Limestone," with iron-ore map. This new edition is the joint publication of the State Geological Survey and the State Semi-Centennial Commission. It contains a thorough revision of the coal, oil and gas developments, several anticlines being added and others corrected from later observation. The valuable iron-ore deposits of the State are also indicated on this map, and all the special features of previous editions corrected and brought up to date, showing the approximate areas of the several coal series, operating mines and their postoffice addresses, as well as the oil and gas pools. Scale, 8 miles to the inch. Price, enclosed in strong envelope and delivered by mail, 50 cents each, but in combination with other publications see general circular of the survey. The survey has published a newly revised edition of the coal, oil, gas and limestone map of West Virginia.

It is interesting to note that the Tredgar Iron Works of Richmond, Va., one of the oldest plants in the country, with a history dating back before the war, was the lowest bidder for steel projectiles and shells for the War Department in a contract representing about \$400,000.

Creating a Colliery Community in the Highlands of Kentucky.

[Special Correspondence Manufacturers Record.]

Jenkins, Ky., May 31.

High up on the mountain that rises from the southern side of this town stands the solitary giant pine that gave its name to John Fox's charming story, "The Trail of the Lonesome Pine." A little westward is a deep gap in the mountain, in which may be seen the fast decaying ruins of the log cabin that was the home of the "yarb" doctor whom the author

practically the primitive condition described by the novelist when, less than two years ago, the magic wand of industrial progress was waved over the scene, with effect almost Aladdin-lamp-like in its sudden results. Nor is there in the novel a single more romantic page than that whereon, in the history of actual accomplishment, is writ the story of the Consolidation Coal Co.'s activities in this sec-

tion during the last 24 months, transforming a region that was a veritable wilderness, though settled a hundred years ago, into a center of tremendous productive energy.

In July, 1911, the Consolidation company began here a development that has worked a complete metamorphosis, changing an isolated, sparsely-settled countryside, whose people gathered scant subsistence from their little patches of cleared land in narrow valley and on steep hillside, to a series of close-lying towns with an aggregate population of 7000; a community of mines and mills and stores and hustling people, closely connected with the outside world by railway communication and commercial interest.

The tract of land which forms the basis for this work consists of 100,000 acres, lying in Pike, Letcher and Knott counties, on the watersheds of the Big Sandy and Kentucky rivers, and the plans laid out for the development provided for building a railroad 40 miles in length and preparing for a production of 2500 tons of coal a day by the time the

band-saw type, were hauled in, erected and set going, and the machinery for two brickyards was also brought in and installed, as were steam and electric outfits for these and the temporary power-houses. A temporary narrow-gauge railroad of some length was built to facilitate the carrying on of the work, and two locomotives for it were among the things brought to Jenkins before the coming in of a railroad from the outside. To get here these mills and machines and the boilers and engines that were to furnish them with power was the problem found hardest of solution.

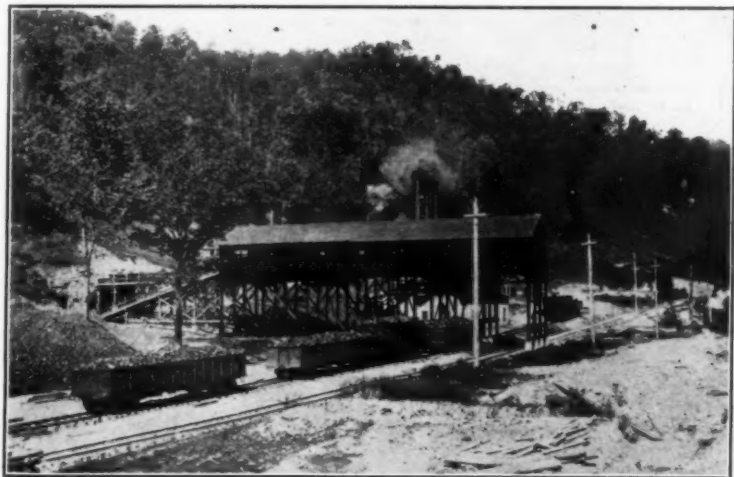
To haul freight of the kind mentioned from Elkhorn City, at the mouth of Elkhorn Creek, a distance of 30 miles, over roads whose best was very bad, was not



HAULING BOILER BY OX-TEAM OVER THE MOUNTAIN TO MINE 206.



THE MAIN STREET OF JENKINS, KY., ON DECEMBER 20, 1912.



COAL TIPPLE AT MINE 206.



CENTRAL POWER PLANT.

used as the original of "Red Fox." Across the mountain on the Virginia side he was hanged for a murder even more atrocious than that described in the book. Just below here are the remains of a dam that once held the waters of Elkhorn Creek and delivered them to a mill whose foundation logs may still be seen. That was the mill of "Uncle Billy" and "Old Hon." A short distance up the creek in the mouth of a hollow is a neighborhood "burying ground," in which is the grave of the man who in Fox's book is made the leader of the "Falins" in their feud with the "Tollivers." He is reputed to have cut 28 notches on the stock of his rifle before he "cashed in." "Devil Judd Tolliver" is still alive, and is well known under another name—his own. His notches are said to number 26.

Fox's story of the people, the country and the time is largely true, with the picture a little foreshortened to bring it within the limits of the printed page, the action a trifle hurried to suit it to the public taste.

The people and the country were in

road of any kind was a narrow-gauge lumber road eight miles away, and also across a mountain. From these things it will be seen that the task to which the Consolidation company set its engineers was no small one. It was to construct a railroad 40 miles long, open up mines, drive entries and erect tipples, establish a number of towns and build homes for workmen and officials, and houses for offices, stores, power stations, machine shops and warehouses, synchronizing the various branches of the work so that the desired coal production would be ready to meet the completion of the railroad.

The first big problem to be worked out was that of getting on the ground the machinery and appliances necessary to carry on a work of such magnitude. To build the hundreds of houses and other structures needed it was necessary to have a great deal of lumber, and the only way to get it here was to cut down and saw up the trees that abounded upon the company's land. Large quantities of brick were needed also. Therefore five sawmills, two or three of them of the big

feasible. The haul from Hellier was little better. Finally, the narrow-gauge lumber road mentioned above was hit upon as furnishing the key to the situation. This road forms a connection at Glamorgan, Va., with the Wise Terminal, a standard-gauge road, and originally ran within eight miles of this place. The Consolidation company leased it, extended it three miles and built a wagon road from its terminus five miles across the mountain to Jenkins. Over this mountain, then, were hauled on wagons the engines and boilers, the two narrow-gauge locomotives, the sawmills and other mill equipment, the brick machinery, electric generators, logging outfits and other things, great and small, needed in carrying on the work of town building and mine opening. The heaviest things were 12 boilers, weighing 8000 pounds each, and those familiar with heavy hauling will have some idea of the difficulty encountered in their removal over a fresh dirt road across a high mountain. It was necessary to hitch as many as 20 head of oxen to a wagon to haul one boiler.

In the same way food and supplies for hundreds of men had to be brought in, an undertaking in itself of no mean proportions.

As an illustration of the tremendous work this hauling involved, and how little the uninitiated knew what it meant, the story is told of the first boiler moved. Two citizens of the neighborhood, each of whom had good teams, contracted to bring the boiler over the mountain for \$100. By the time they had spent on the work the full amount of money the contract called for they had gotten the boiler about one-third the way over, and asked to be relieved of the work. The company told them to go ahead and complete their contract, and it would see that they lost

waters of Elkhorn, which it follows to this place, and to the mines above here, the total length being about 40 miles. The road was finished in good time, and has been equipped with 2000 modern 50-ton steel cars and ample motive power. The rail used is 90-pound, and the track is well ballasted. By an agreement made in the beginning the Sandy Valley & Elkhorn Railroad has been turned over to the Baltimore & Ohio for operating purposes, and is now being run as part of that system.

The business of producing coal having been looked after with the zeal and intelligence that characterize the undertakings of the men at the head of the Consolidation company, by the time the railroad

on the Elkhorn above and below Jenkins.

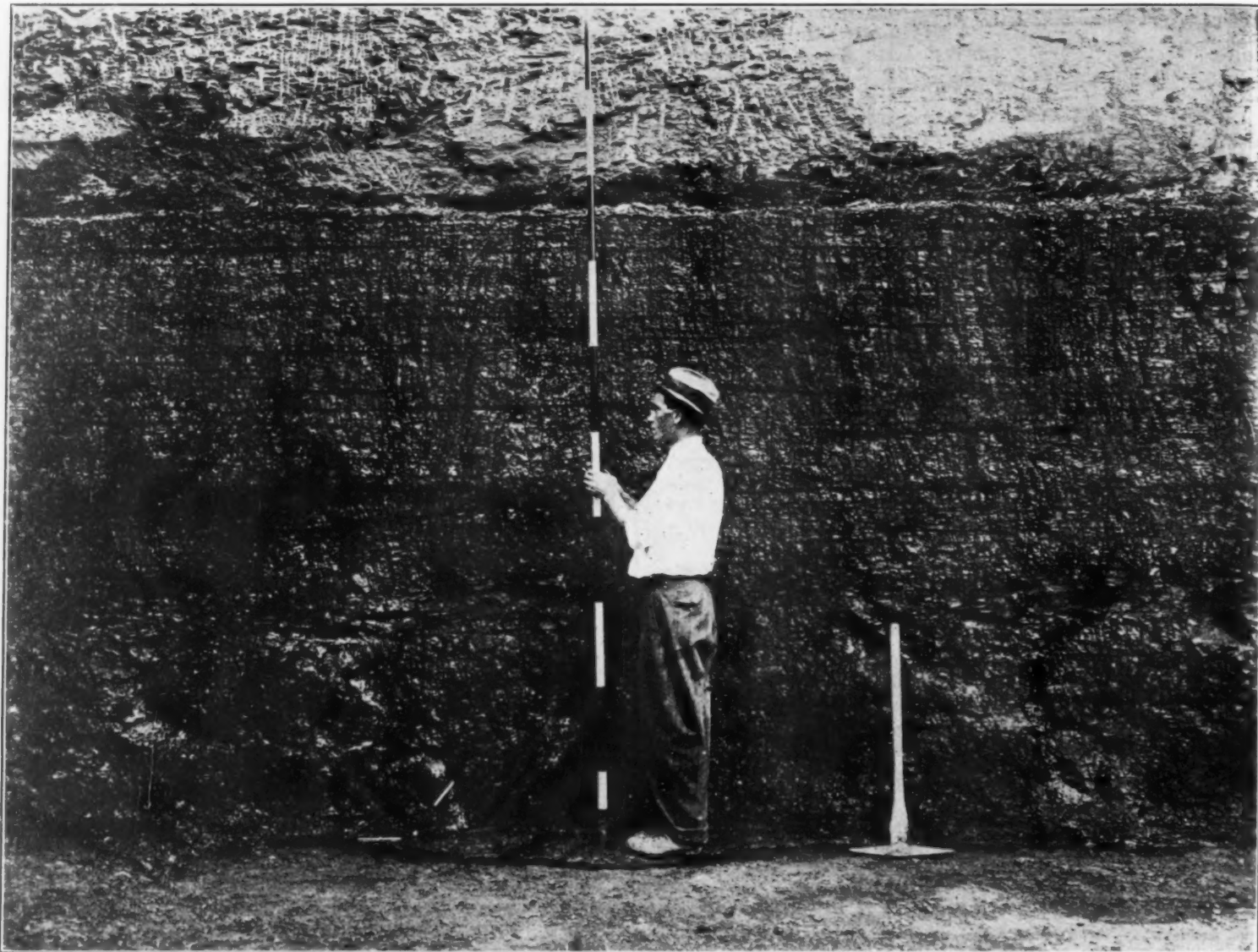
One the greatest difficulties encountered in carrying on the work was that of getting labor. The native supply was small and not reliable. The mountaineer works when he wants to and "lays off" when he chooses. This, of course, would not do for an enterprise such as this. Even in "logging" the mills it was necessary to get men from the outside, and great trouble was experienced in keeping up the supply. Finally, after trying many from various parts of the country, a large number of Austrians were secured, and they now compose most of the woods force.

At first a great deal of trouble was caused among the men in the woods by

whose buyers come here to inspect and purchase.

The timbering is carried on under the direction of a scientific forester, and no woodsman strikes axe in tree unless it bears the forester's mark. When a tree is felled every portion of it is used, down to three inches in diameter, for purposes ranging from the making of sawed lumber to mine props and ties.

Jenkins is well built up, and is a much better town than is usually found about even the largest mining operations. The building erected for the general offices and the bank is a large brick structure of three stories and basement, handsomely finished inside and out, and having water and steam heat all through it. The store



SHOWING FACE OF COAL SEAM AT MINE NO. 206.

nothing. They got \$200 for the job, which brought them out about even.

As soon as sufficient machinery was gotten on the ground to set up a mill the saws were started, and these were soon followed by planing and finishing mills and the beginning of building operations, which have been going on ever since, until now there are on the property in this and other towns some 900 permanent buildings and about 850 of them being dwellings for miners and other employees. These are in addition to a hundred or more shacks put up for temporary use during the construction period.

To build the railroad the Sandy Valley & Elkhorn Railroad Co. was organized. The route chosen was from the Chesapeake & Ohio at the mouth of Shelby Creek, about 30 miles from here. It follows Shelby Creek to near its source, and then crosses through a low gap onto the

was completed the mines were ready with their 2500 tons daily production, and shipments were begun at once. The output has increased from month to month until it is now in the neighborhood of 5000 tons daily. There is little doubt that the 3,000,000-ton production will be reached by the time set for it, and that the ultimate production will run above instead of below the 7,000,000-ton mark.

Not all of the present production goes over the Sandy Valley & Elkhorn road, however. The Louisville & Nashville, realizing that there would be a very large tonnage to be secured by getting a line into the field, extended its subsidiary road, the Lexington & Eastern, 98 miles from Jackson, Ky., to McRoberts, on Wrights Fork of the Kentucky River, six miles across the mountain from Jenkins. The company now has 15 mines in commission, of which six are at McRoberts and nine

moonshiners and illicit whiskey dealers, who carried intoxicants into the camps. This brought about disorganization among the "crews" and "worry" for the management. This has finally been pretty well overcome, and now only an occasional "hootlegger" strays in to dispense his trouble-making wares.

The lumbering operations carried on are, by the way, of much larger proportions than were necessary merely to furnish lumber for the company's own uses. The land was well timbered, and in all more than 30,000,000 feet of lumber has been cut. Two or three big mills are still at work, and will be kept busy for a number of years. Lying on the "sticks" at the mill yards are millions of feet of lumber ready for the market, and large quantities are being sold and shipped out to concerns in various parts of the country,

building is also a three-story brick, and covers a large area. In it is carried an immense stock of goods of a general character. Other brick buildings already erected are a large power-house, a modern school building of ample proportions, bakery, ice plant, machine shops and supply house for oils, paints and cement. Brick structures to be put up at once include a drug store and postoffice, a hospital and a warehouse adjoining the store. The company will also build and equip a Y. M. C. A. building at a cost of \$30,000 or more, and the Methodists will build a \$20,000 brick church.

A large clubhouse has been provided for the accommodation of the office employees and others of like character who are unmarried, and is run by the company much like a hotel. The rooms are comfortable, the baths are convenient, and everything possible is done to furnish

those who make it their home—some 50 or more—with pleasant living conditions at moderate cost. A hotel building of considerable capacity has been provided by the company and is being run by private parties for the accommodation of the traveling public, and there are numerous boarding-houses for the entertainment of the workmen who have no families. Hotels and boarding-houses have also been provided at the other towns.

Across a tributary that flows into Elkhorn Creek at this point the company has constructed a large concrete dam for the purpose of impounding water for the boilers in the power-house. This makes a beautiful lake, around the border of which, on ground that rises gradually for some distance before beginning the steeper ascent of the mountain side, twenty-odd houses have been built for the homes of the company officials and those in its employ who can afford more rent than the day laborer. They are handsome and roomy structures of the kind that go well with the forest trees that surround them, forming a scene that is most attractive to the eye. These houses are modern in construction and equipment, having all the conveniences that are to be found in any city home. On the hillside some distance above, and at an altitude sufficient to furnish the necessary pressure, a reservoir has been built into which the water runs from a clear, strong mountain spring, and this water, after being well filtered, is carried by gravity into the houses occupied by the officials and into the clubhouse as well. The heat for these same buildings, together with the office and store buildings and schoolhouse, is furnished from the power-house by a modern system of steam distribution. All are lighted by electricity.

The power-house, from which power will be furnished to all the company's mines in this section, and possible to many others within a radius of 100 miles, will be fitted up for an ultimate development of 10,000 kilowatts. The present installation consists of two direct-connected steam turbines of 2500 kilowatts each, and room has been prepared for the duplication of these when occasion demands. The steam is furnished by automatically stoked boilers, the coal being carried direct from the cars to overhead hoppers, from which it goes to the fire-boxes as needed.

For the miners and laborers houses have been provided much better than those usually found in mining towns, and far superior to the tenements occupied by the average wage-earner in any city. These houses are well built, can be easily heated, and are of different sizes, so that the man of family can secure his home according to the number in his family. They are provided with water from deep-drilled wells. Rents are cheap, and the company furnishes fuel at about cost.

At the store prices range about as they do elsewhere, and the stock is so complete that practically everything can be secured there that can be gotten anywhere. Fresh meats, excellent fresh-baked bread, vegetables, everything seasonable is kept in stock. The ice plant here has a capacity of 15 tons a day; the one at McRoberts two tons. It is the policy of the company to furnish working and living conditions to its employes that will secure for it the best and most reliable class of labor to be brought together anywhere.

Before purchasing these lands the Consolidation company had the coal tested in hundreds of places. The outcrop was "faced up" and many drill holes were put down, and the experiments showed that the seams preserved their integrity to a quite remarkable degree. The coal,

which runs from six to nine feet in thickness—and really reaches 13 feet in numerous places—lies low in the hills, and the loss of acreage on account of streams and hollows is comparatively little. In the 15 mines that are now being worked the thickness of the seam averages about seven feet, than which there is probably no more convenience size for mining. The overhead conditions are good generally, the mines free from dangerous gases, and well drained.

The coal itself has been found of exceptionally high quality for coking, and has rapidly become popular for metallurgical processes. The necessity for by-product plants in connection with blast furnaces has created a demand for it in numerous markets, and large contracts have been closed for furnishing it to iron and steel plants for many months to come. The rapidly increasing use of gas for domestic purposes also helps along the demand for this quality of coal, for it is high in volatile matter, and the gas return from a ton is large. Hundreds of analyses have been made of this coal, the average of which is as follows:

Moisture, 2.00; volatile, 35.00; fixed carbon, 59.00; ash, 4.00; sulphur, .75; phosphorus, .004; B. T. U., 14,425.

The production and shipping of 7,000,000 tons of coal a year means that something like 30,000 tons must be handled every day the mines run, for no mining operation can be expected to run every day. As six tons a day is about the average output for a miner, it will be seen that it will take 5000 miners to get out the coal which the Consolidation has set itself to produce in this field. Add to this the men and boys required to handle the coal after it leaves the miners' rooms, and the number of employes will run easily to 8000 or 9000.

That means that when the development in this section reaches full-grown proportions there will be a mining community here and in the other camps of from 30,000 to 35,000 people. It means further that there will be distributed in wages in this immediate section from \$4,000,000 to \$5,000,000 annually, and that any man who owns a farm or a tract of tillable land big enough for a garden patch of any kind anywhere within each reach will find here an active and profitable market for everything edible he can raise.

It means, finally, that one of the waste places of the earth will shortly become one of the most highly productive, with a resulting beneficence of far more than State-wide significance. GEO. BYRNE.

Appalachian Apple Orchards.

President Louis B. Magid of the Appalachian Apple Orchards, which were started about 18 months ago on a tract of land at Tallulah Falls, Ga., between Hickory Nut Mountain and Toogala River, writes to the MANUFACTURERS RECORD that 35,000 apple trees have been planted on 500 acres of a 5000-acre tract, and that in the nursery are 120,000 apple trees grafted on imported French stock. The company has its own power plant and private water supply, and has built a canning factory with a capacity of 15,000 cans a day, and expects to can in this year's season 25,000 cases of two dozen cans each of tomatoes and sweet potatoes, besides beans and peas and other vegetables and fruits. The number of men employed on the property ranges from 45 to 80, according to the season, and for them a boarding-house with reading-room and modern conveniences has been provided. Besides the orchards, the company farms about 400 acres in corn, peas, tomatoes, potatoes, onions, oelre, alfalfa and other crops.

Making Paper in Mississippi.

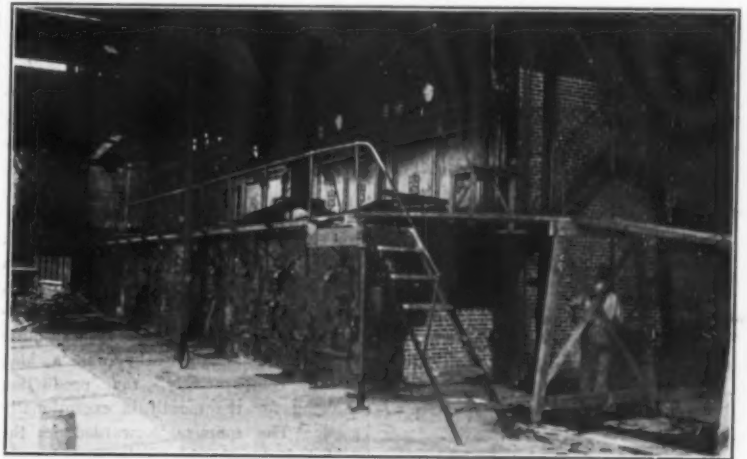
[Special Correspondence Manufacturers Record.]

Pascagoula, Miss., May 28.

The great pulp and paper mill near Laine, Miss., for the making of pulp and paper from the slabs of the sawmills and the saplings of the pine forest, is now completed and the work of making pulp is going on. When one approaches the mill from the Escatawpa River, the first object that greets his eye is the "slab conveyor," which rises some 30 or more feet into the air and which automatically conveys the slabs and other wood from the barges moored to the banks of the river over to the yard, where they are stacked in long rows awaiting the time when they are to be ground up for the making of the wood pulp. Adjoining the engine-house is a two-story wooden build-

carried into large vats into which streams of cold water are continually pouring, which washes the fiber clear of all chemicals that may be remaining, and then automatically is carried to the "beater-room," where there are eight large beaters. These beaters look like huge kettles, which contain three grindstones each, one horizontal and two perpendicular, which grind up the wood mash fed into them and complete the process of making the pulp.

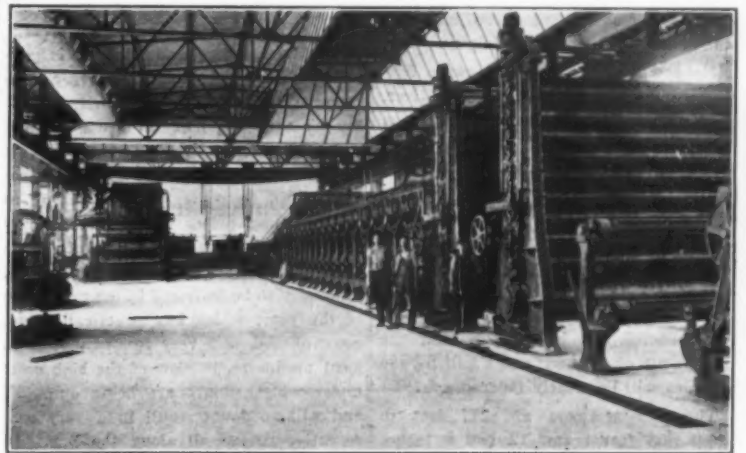
The pulp is conveyed into the cooler-room, where the cooler is, a huge steel cylinder some six feet in diameter, and to which the paper pulp is fed and comes off the cooler in great sheets as large as a horse blanket. The sheets are thrown off into a heap, where they lie awaiting the



BOILER-ROOM IN PLANT OF SOUTHERN PAPER CO., LAINE, MISS.

ing that contains a piece of machinery called the "hogger," which looks like a huge drum that contains a funnel-like opening, and into this opening a man and a boy are continually feeding pieces of wood two and one-half feet long and from four to six inches in diameter. The wood goes into the hogger at one end and in a second it comes out of the other end ground up as it were into coarse kind of meal, and might be appropriately called

time when they will be conveyed to the paper-room, where the pulp will be rolled over a number of brass rollers heated by steam and go through the final process of becoming paper. The huge drum-like object in the paper-room is by the men called the "Yankee," and was made by the Samuel W. Langton Company of Camden, N. J., and the rollers were made by J. H. Harne & Co. of Lawrence, Mass. In the background is a huge crane



MACHINE-ROOM IN PLANT OF SOUTHERN PAPER CO., LAINE, MISS.

wood meal. Before the wood is fed into the hogger it is first stripped as clean as possible of its bark, which work is done by men who work by the "cord." This wood meal drops from the hopper into a sieve of coarse wire, is sifted and then is automatically taken and carried aloft through a flume into the third story of the pulp mill, where it is allowed to fall as fast as needed into immense tanks filled with the necessary chemicals, where the wood goes through the process of being converted into pulp. Then again it is

that came from the Northern Engineering Works of Detroit, Mich., and is called "The Northern Crane." These only show how one industry is a stimulus to another.

Besides the slabs from the sawmills at Moss Point, the Southern Paper Co. has made contracts with a number of people for wood which must be delivered to the mill in pieces of not less than four inches in diameter. One man who lives at Pearlinton, Miss., more than 100 miles from the mill, has made a contract to deliver wood to the mill. It will come down the

Pearl River in barges to the Mississippi Sound, then up the Pascagoula and Dog rivers to the slab lifter or slab conveyor.

Since January 10, 1913, Mr. A. W. Maymes of New York has been the general manager of the mill, and Mr. A. Davidson of Edinburgh, Scotland, is the superintendent. The plant as it now stands has the capacity of 90 cords of wood a day, and will make 45 tons of pulp. A short time ago Mr. J. H. Wallace of New York, and second vice-president of the company, who has had charge of the work of constructing this great plant, made before a committee of the Pascagoula Business Men's League and in the presence of the writer the statement that his company had authorized him to spend \$100,000 to build houses for the employees of the company, and also \$800,000 more to put up another mill as soon as the present one was running, the present pulp and paper mill having cost the sum of \$800,000. The Road Commissioners of District No. 3 of this county have built a good shell road from Pascagoula to the paper mill, and will extend their work on to the Alabama State line to connect with the speedway that Alabama is building in the direction of Pascagoula. The commissioners, who are F. H. Lewis, chairman; Chas. E. Chidsey, secretary, and R. A. Farnsworth, are today putting the finishing touches to a chert road from the paper mill to the Louisville & Nashville Railroad at Laine, which connects with the speedway to Pascagoula.

CHAS. E. CHIDSEY.

TWIN VESSELS LAUNCHED.

New Steamers for Chesapeake Steamship Co. Take the Water at Sparrows Point.

In the continued rapid development of the transportation facilities of the Chesapeake Steamship Co., Baltimore, that company added the City of Baltimore and City of Norfolk to its fleet a little over two years ago, and already it has been found necessary to add two more fine new steamers. These are the City of Annapolis and City of Richmond, which were launched last Saturday at the marine plant of the Maryland Steel Co., Sparrows Point, Md., in the presence of a large number of people gathered from distant points, Baltimore and vicinity.

The new steamers will ply between Baltimore and West Point on the York River, and make connections with the Southern Railway for Richmond and the South. The addition of these vessels will mark the inauguration in November of a daily service for the York River Line, and will also mark the completion of considerable improvements in the railway connection between West Point and Richmond. New heavy rails are being laid and the road-bed ballasted. It is expected that the present run of one hour and a half for the 39 miles will be greatly reduced.

The new steamers are 277 feet in length, 53 feet beam, 12 feet 6 inches loaded draft, speed 16 knots, cargo capacity 450 tons, gross tonnage 2000 tons, and have passenger accommodations for 400 persons. They are constructed on the "Isherwood" system. There are 118 rooms, nine shower-bath rooms and nine regular bathrooms connecting with state-rooms.

The innovation introduced in the City of Baltimore and City of Norfolk of having the dining-room on the hurricane deck forward has met with such wide approval that the same plan has been followed in these new steamers. The wireless-room is located on the hurricane deck aft. In addition to the wireless, the vessels are

equipped with interior telephone service, so that messages may be sent to any point directly from the staterooms. When the vessels reach the docks the telephones are connected with the city exchange. The City of Annapolis was christened by Miss Ursula Harrison, daughter of Fairfax Harrison, president of the Chicago, Indianapolis & Louisville Railway, known as the "Monon Route." Mr. Harrison was formerly vice-president of the Southern Railway Co. and chairman of the board of directors of the Chesapeake Steamship Co. The City of Richmond was christened by Miss Ann Carter Lee, granddaughter of Gen. Robert E. Lee.

The launching of these vessels leaves several large steamers under construction on the stocks at Sparrows Point, and a number are also being completed at the docks there.

The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., June 2.

Blast furnace operations in the Birmingham district on June 1 were represented by 16 stacks producing foundry iron, eight stacks producing standard basic iron and two stacks producing warm blast charcoal iron. This against 17 active stacks on foundry iron May 1, with the same number of stacks in operation on basic and charcoal iron, respectively. At all of the several plants the daily output during the month of May was quite satisfactory, and as May was a long month comparatively, the production showing for the month is exceptionally good. The tonnage forwarded in the period just referred to is considerably smaller than the output in that time. This condition does not apply to all plants, but the aggregate tonnage on furnace yards June 1 shows a substantial increase over the aggregate of May 1. With the beginning of June the condition of the foundry iron market is probably more unsatisfactory than at any time so far in the year. The level of selling prices is lower than at any time in the year, and even at the low figures obtainable, the demand is practically of no consequence. Of course, some tonnage is being sold, and the aggregate volume of business being transacted is in a way attractive, but sales are by no means equal to the present rate of production, and while it is generally understood that the larger consumers, as well as the majority of the smaller concerns, must of necessity soon make provision for the requirements, it cannot be foretold just when such provision will be made, nor the extent to which selling prices will be affected by further delay. The establishing of a basis of \$11.50 per ton at Birmingham for No. 2 foundry to be delivered in the remainder of the year, which has practically been accomplished, is a very serious matter to local producers, in view of the high costs under which plants are being operated, and will no doubt result in a very conservative course all along the line. In this particular, reference is made to the improvements that have been considered at the several furnace plants, as well as to the ore and coal mining improvements and extensions that have been considered. A basis of \$11.50 per ton at Birmingham, affords practically no margin for the expenditures that have been proposed; in fact, at such figures the suspension of furnace operations entirely would necessarily result at certain plants.

The suspension of operations and the adjustment of the output more closely to the consumption requirement would no doubt be most effective in maintaining higher asking prices; yet, the suspension

of furnace operations within itself has many disadvantages and resulting expense, and hardly results in any case unless of necessity. One furnace was blown out for relining within the past week, and it is not unlikely that additional stacks will be repaired while the market is in an inactive condition; at the same time, one furnace is being prepared for blowing in, and the blowing in of two additional stacks is under consideration. The aggregate accumulation of all grades on furnace yards is now close to 150,000 tons, or approximately 5500 tons for each of the furnaces in blast. This means a surplus of practically one month's production at each of the active stacks, which is not a bad showing. However, the trade is still receiving tonnage against previous engagements, and just at this particular time it is very evident that provision for future requirement is not necessary to the same extent as orders are required to take care of the future make. At all operations the unfilled tonnage was reduced materially in the month of May, and it is interesting to note that since the last decline in prices the larger concerns, or those who have adhered to prohibitive asking prices by reason of the condition of order-books, have re-entered the market. A basis of \$11 per ton at Birmingham for competitive territory is mentioned in connection with this last, although the minimum consideration for local or Southern requirements is placed at \$11.50 for No. 2 foundry, with a differential of 25 cents per ton for the lower grades. The sales made in the past week aggregated some 5000 tons, and except for special analysis considerations, no higher figures than \$11.50 per ton at furnace were paid. This price applied to delivery through the remainder of the year, and to carloads and lots of 100 to 150 tons each for prompt delivery. The largest sale made in the week involved 500 tons each of high silicon and No. 3 foundry, for delivery in the third quarter. With the market very quiet, and both purchasers and producers apparently disposed to await further developments, asking prices for deliveries in the remainder of the year are revised as follows per gross ton f. o. b. cars at Birmingham district furnaces, viz.: No. 1 foundry, \$12 to \$12.50; No. 2 foundry, \$11.50 to \$12; No. 3 foundry, \$11 to \$11.50; No. 4 foundry, \$10.50 to \$11; gray forge, \$10 to \$10.50; mottled, \$10 to \$10.50; standard basic, \$11.50 to \$12; off basic, \$11 to \$11.50; warm-blast charcoal, \$24.50 to \$25.

The higher prices apply to carload quantities of favorite brands, and to analysis stipulations in larger requirements.

In the finished material market the volume of new business is small, comparatively, and as a reflection of the conditions existing in the pig-iron market, prices have a tendency to decline. The local consumption has been increased over that of the week just previous by the adjustment of the builders' trades strike in Birmingham and vicinity, but, of course, without adding specifications to contract requirements. At Alabama City and Ensley the output continues at a normal rate, while the smaller mills have not curtailed to any appreciable extent.

Furnace coke is easier, but foundry coke is still in strong demand, and is bringing \$3.75 to \$4 per net ton at Birmingham ovens.

There is practically no demand for any grades of old material, and price considerations are affected accordingly. The tonnage on local dealers' yards is smaller in the aggregate than for many months, without any effort to increase the several holdings under existing conditions.

For Apple By-Products.

Editor Manufacturers Record:

Haywood county, in which Waynesville is located, is perhaps the largest apple-growing county in North Carolina. Within the past year the organization of a co-operative association has done much to help better conditions in the way of marketing. In this way the apple industry has received a great impetus, but there is still room for much improvement, especially in the matter of handling the crop at the time of putting it on the market.

Perhaps the greatest need of all is the devising of some way for handling the culls to an advantage. A conservative estimate would show that the loss on this account the past season was easily 100,000 bushels—fully one-third of the entire crop. While the crop of 1913 does not promise more than one-third of that of the past year, yet the initiative to prevent this great waste must be taken. As it takes a good deal of time to get in touch with all the manufacturers who make various machinery for handling these low grades to profit, I am just writing to your valuable periodical, calling attention to the needs, knowing full well that in this way I will be put in touch with those who are in position to give the needed information.

There may not be the demand right now for a very large plant, but one started on a sane and safe basis would get good support from the start, and it would only be a very short time till there would follow the necessity for an enlargement. I shall be glad to receive descriptive matter in regard to any machinery that may be used to convert these culls into valuable by-products, or to take up the matter with any prospective persons who are looking around for a place to establish a plant for the making use of apples and other fruits and vegetables.

With all its splendid merits as a fruit that takes first rank among all fruits as universal food, the apple is not unlike other fruits in that the real net profit comes from making use of the by-products. I know of nothing that would so help the apple industry in this God-favored region at this time as the putting in operation something that will prevent this continuous waste. Indeed, I know of no slogan so much needed for the North Carolina apple as: "Not one to waste."

J. FRANK FOOSHE.

Waynesville, N. C.

To Develop 30,000 Acres.

The Hagan property in Scott county, Virginia, is being laid off into leases for development. It comprises about 30,000 acres and contains two or more beds of coal, the outcrops of which run almost parallel to the Carolina, Clinchfield & Ohio Railway and range from four to two miles distant therefrom. Water-power sites controlled by Mr. Hagan within easy transmission radius of contemplate coal and coke plants will be utilized for generating electricity to mine more than 2,000,000 tons of coal per annum. Chas. F. Hagan of Bristol, Va.-Tenn., is trustee of the property.

A \$250,000 Chemical Company.

The United Chemical Co., Nashville, Tenn., has been incorporated, with \$250,000 capital stock, by John F. Craig, F. D. Craig, W. M. Joel, C. D. Quick and Howard Hull.

The Granville Commercial Club, Oxford, N. C., writes to the MANUFACTURERS RECORD that the organization is endeavoring to arrange for the establishment of a silk mill, but no definite plans have as yet been formulated.

Near Natural Gas and Oil.

LOCATION OF WICHITA FALLS AS TO THE PETROLIA AND ELECTRA FIELDS.

[Special Correspondence Manufacturers Record.]

Wichita Falls, Tex., May 18.

Less than 15 years ago Wichita Falls was a village of 2500 population; now it is a busy city, six times as large, with important manufacturing concerns, a growing commerce and such evidences of metropolitan "class" as a steel construction office building, modern hotel and concrete apartment-house. It has ambitions to get into the Fort Worth class, or even become as large as Dallas and establish itself as a great industrial city and the commercial center of an extensive territory, meeting the Fort Worth zone on the east and dominating everything for long stretches to the north, south and west.

Natural gas in enormous quantities stimulated the present growth, and as the gas field is declared to be second only to that of West Virginia in quantity and probable length of life, there will unquestionably be attracted to Wichita Falls a large number of such industries as can advantageously distribute their products from this locality, and to whom cheapness of fuel is an important consideration. Gas is furnished to industries at from four to eight cents per 1000 feet, in accordance with the amount of consumption. Already industries attracted here by cheap gas include a window-glass factory, bottle factory, auto-truck factory, pottery works and extensive brickyard.

The present developed field is 15 miles east of Wichita Falls, in Clay county, and is known as the Petrolia field, which is the same section that was at first known as the Henrietta field. Enormous flow and great initial pressure are characteristic of the field. With a 20,000,000 to 40,000,000-foot flow, one well will supply a string of cities, and extensive development has been made only to prove the extent of the field. The tests have shown a very large field of similar character, although the limits of the productive field have not been precisely determined. There are producing wells 20 miles apart, and how much of the intervening or outside territory will be found productive is not yet known; suffice it to say, the field is a very big one, and is considered good for a half-century or more of exploitation. The wells are deep, the deepest around 2000 feet, and the rock pressure is from 500 to 700 pounds. The Lone Star Gas Co., composed of experienced gas men from elsewhere, supplies a wide territory in North Texas with its service pipes, including Fort Worth, Dallas, Sherman, Denison and intervening cities and towns. An independent local company supplies Wichita Falls with gas for domestic, municipal and industrial purposes.

Along with the great gas field, Wichita Falls has one of the greatest new oil fields in the country. It is less than two years ago that oil was first struck in the Electra field, 16 miles west of Wichita Falls, and now the field is producing about 20,000 barrels daily of light crude, bringing at the present time 95 cents a barrel, and in great demand for refining. The total production in this field for 1912 was 4,165,438 barrels, which was five times greater than that of 1911. The high price of the oil, which is most valuable for refining, stimulates great activity, and from 30 to 40 wells a month are being completed in that territory. Although no local use of the oil is made, the millions of dollars in wealth production it brings will be a potent factor in the growth and development of Wichita Falls. The oil is

pipied to refineries at Fort Worth, Gates, Corsicana and Beaumont, and is shipped by tank cars to other refineries. Also the Oriental Oil Co. at Dallas is completing a \$100,000 plant, which will run on Electra oil. The proven territory of the Electra field is now five miles long, east and west, by one and a half miles wide. The field in which oil has been found has increased from 800 acres to 7000 in a little more than one year. It is believed that the proven territory will be still greatly extended, and that so far only a preliminary development of the entire North Texas field has occurred. Oil is struck all the way between 400 and 2200 feet, it being stated that there are seven distinct oil-bearing sands underlying the field.

In addition to the fuel supply of natural gas, there is a very extensive coal field 50 miles to the south of Wichita Falls, which may be drawn on as required, and which is now utilized for railroad locomotive purposes and other uses. It is a very good quality of bituminous coal, is easily and cheaply mined and has excellent transportation facilities.

Wichita Falls is well supplied with railroads radiating in several directions. It is on the Fort Worth & Denver Railway, 114 miles northwest of Fort Worth, and through this line has Eastern, Southern and Northern connections at Fort Worth with all the lines reaching that city. The Missouri, Kansas & Texas Railway, which under its present management is undertaking a very vigorous campaign of development along its line, is a very important railroad for Wichita Falls. A branch line runs between Wichita Falls and Denison, and recently the Missouri, Kansas & Texas Railway has taken over the Wichita Falls & Northwestern, 400 miles in length, which runs to Forgan, Okla., crossing the Santa Fe at Woodward, and having a branch line from Altus, Oklahoma to Wellington in the Panhandle of Texas. The Wichita Falls & Southern, which runs to the Newcastle coal fields, 50 miles south of Wichita Falls, is another line in the "Katy" system; also the Wichita Valley line, 145 miles in extent, running between this city and Abilene, where it connects with the Texas-Pacific and Alibene Southern. The Wichita Falls & Oklahoma, running to the Petrolia gas fields and on to Byers, 20 miles in extent, is owned and controlled by the Fort Worth & Denver.

Although 32 years old, Wichita Falls had no growth until natural gas was struck six years ago. In 1900 the population was less than 3000, and in 1910 the census showed 8200, the increase over the previous census returns being 230 per cent. Estimates of present population are around 15,000. It is the belief of some of the local enthusiasts that within 20 years, based on industrial and agricultural development, there will be a population of from 75,000 to 100,000.

Originally a stock-raising country, and still being devoted to a considerable extent to this industry, the agricultural development has been retarded through a lack of reliable rainfall. If the annual rainfall—some 32 inches—could be reliably distributed throughout the growing season, there would be sufficient to raise abundant crops. The soil is a sandy loam, rich and warm, and with sufficient moisture will produce bumper crops of corn, oats, wheat, cotton and other staples generally, as well as vegetables and

truck. Irrigation is being undertaken to some extent, and a number of ranches are being cut up into smaller farms. Projects are on foot right now for the building of reservoirs and a comprehensive irrigation system, and as the watershed of the Big Wichita River is a very great one, there seems to be no obstacle in the way of carrying out this very important undertaking. With moisture assured, there would be a very large acreage, amounting to 100,000 acres or so, available for all kinds of agricultural purposes, and without question it would be taken up as soon as available because of the rich quality of the soil, excellent transportation facilities and favorable climatic conditions. The elevation here is over 900 feet, and the air is dry, giving healthful conditions. Summer heat is high during the middle of the day, but there is almost invariably a breeze, and at night there is no sultriness, the atmosphere always cooling off at sundown.

A demonstration of the irrigation possibilities has been made by a company of which Mr. J. A. Kemp and Mr. Frank Kell are the principal owners. By damming a small stream a lake of rainwater has been formed some 16 miles long and a mile wide at the widest part, the water from 18 to 20 feet deep. This lake supplies the city with water for domestic uses, being of great purity and altogether palatable after having been treated in a filtration system patterned after the St. Louis filtration plant. The lake also supplies water throughout the year for irrigation purposes, and it has been made an attractive pleasure resort for boat riding. It is altogether probable that the work of developing a water supply through damming the Big Wichita will be undertaken at an early date.

Wichita county is one of the best wheat-producing counties in Texas, having raised as high as 2,000,000 bushels in one year. With the certainty of moisture which irrigation will provide, there undoubtedly will be a return to extensive wheat growing. Last year wheat was largely displaced by other crops, principally cotton, of which 14,000 bales were raised in the county. It is stated that no damage from boll-weevil can occur in this county on account of the dry atmosphere and elevation. A fine grade of cotton is raised, and with irrigation a bale or more per acre may be relied on.

Because of the cotton supplies in the immediate vicinity, as well as on account of the cheapness of fuel and general attractiveness of Wichita Falls as an industrial location, experienced and capable cotton mill men of North Carolina are negotiating at the present time for the location here of a 20,000-spindle mill. Prospects are very favorable for the success of the proposition, which will represent a \$500,000 investment, and with the successful establishment of one enterprise of this kind, it is altogether likely that a very considerable growth in this line of manufacturing will follow. Fuel, raw material, transportation and labor are features at hand, and it would seem that the attractions are altogether sufficient to induce the upbuilding of a very important textile district here.

Not only is the location favorable for cotton manufacturing, but some of the finest sheep's wool in the world is produced near Wichita Falls. Alexander Albright of Dundee, Tex., produces wool from Lincolnshire and Kara-Link sheep, with fiber from 24 to 26 inches long, which wool sells at \$1 per pound, and the statement is made that there is no better climate or more favorable location for sheep raising to be found anywhere than in this section. This indicates the possibility

of a development in woollen manufacture as well as cotton.

The industries already located include the Wichita Falls Motor Co., which makes auto trucks of from one ton capacity up, and suited to all of the various uses to which commercial cars are now put, including hose and chemical fire trucks and oil and water sprinklers. The factory has a capacity of 50 trucks a month; it has been in operation about two and a half years, using original designs and manufacturing an engine of special design. The highest skilled managers and workmen have been employed, and a car is turned out which competes in the markets of the world. It is being sold throughout the South and elsewhere, quite a trade having been built up in Los Angeles, and a special effort is now being made to work up a foreign trade.

The Wichita Falls Window Glass Co. began operations about the middle of October. Window glass of a high grade is manufactured here, and a product of 30 to 40 cars a month is shipped out to a wide territory. About 250 hands are employed. Glass sands are found at various places, but at present the supply is being secured exclusively from the vicinity of Decatur, about 40 miles north of Fort Worth.

The Texas Bottle Manufacturing Co., beginning operations subsequent to the glass company, makes high-grade bottles of every shape and kind and markets from 10 to 12 cars a week throughout an extensive territory. About 200 hands are employed in this factory. Messrs. Kemp and Kell, who are very active spirits in developments of all kinds in Wichita Falls, are the principal owners of the two glass plants and the auto-truck factory. These industries are located in the factory section, a large tract of land with transportation facilities, both steam and trolley lines, and which is provided with water, sewers, gas and electric-lighting conveniences. Altogether about 1000 hands will be employed in the various industries in this district. A number of these people are from the outside, particularly so in the case of the glass blowers. The women and children of these families provide a large supply of labor which should be available for cotton mills and other enterprises of that sort. The owners of this property make extremely liberal offers to industries suitable to locate here.

On account of the abundant and cheap supply of natural gas and the probability that the field will be one of very long life, the Ball Brothers, manufacturers of jars, have recently concluded negotiations for the establishment of a big factory in the industrial section at Wichita Falls. Work on the group of buildings required has already been started, and it is the expectation that the plant will be in operation this fall. There will be altogether 10 buildings located on a tract 50 acres in extent. Three hundred hands will be on the payroll, and it is the intention to make this one of the important plants of the Ball Bros. Company.

In the factory section is the plant of the Wichita Falls Pottery Co., started by Mr. J. P. Donaldson. Beginning in a small way, he is gradually expanding, and bids fair to develop an industry of importance. He manufactures flower pots, jugs and other domestic pottery from clay secured in Wood county, Texas. He markets his wares in carload lots.

The Wichita Mill & Elevator Co., of which Mr. Frank Kell is principal owner, has been in operation here for a number of years, and is the second largest flouring mill in the State. It handles about 1,000,000 bushels of wheat a year. Its

daily capacity is 800 barrels of flour and 250 barrels of meal. A considerable amount of the output of this mill is exported, principally to Cuba, Porto Rico, and also South America and Holland. The export business amounts to about 6000 barrels a month.

A broom factory is an interesting industry, well established here, with an output of from 225 to 250 dozen brooms a day. Considerable broom corn is raised in this vicinity, although some is shipped in from Oklahoma and elsewhere. The product of this plant has a ready market all over Texas and elsewhere.

The Wichita Falls Brick & Tile Co. employs 100 men and has a daily capacity of 250,000 brick, made of clay secured here locally. In addition to common building brick, the company manufactures hollow building tile, drainage tile, etc.

The shops of the Wichita Falls & Northwestern Railway are located here, employing some 160 men.

According to the published statements of the Chamber of Commerce, there are 40 different industries located here, with a monthly payroll of \$50,000 and a product amounting to \$12,000,000 a year.

Wichita Falls is a very well paved and well lighted city. There is vim and enterprise evident in every physical aspect it presents. There is as live a set of hustlers behind the development as can be found anywhere, and with the great variety of natural resources, with oil, gas, water and fertile farm lands, together with climate, location and transportation, it is easy to believe that the faith of its backers in a great development here is well founded.

ALBERT PHENIS.

Notes by the Way in Dixie.

One year ago some friends interested in the Seaboard Air Line, knowing that I was making a trip to Florida, asked me to tell them what I thought of the Manatee country. The night of my arrival at Sarasota, one of the prosperous towns of that section, near where Mrs. Potter Palmer of Chicago had just bought more than 100,000 acres of land, I wired that the piece of track from Turkey Creek, near Tampa, to that point was the "rottenest piece of railroad" which I had ever had the misfortune to travel on, and that any country that could live and develop dependent upon a railroad of that kind must have unusual advantages.

Some Seaboard officials and directors accepted the telegram in the spirit in which it was sent, some thought it was a rather harsh criticism, but any man who had been so unfortunate as to have to

travel over that line realized the truthfulness of the statement. It was a remarkable piece of railroad; an unusual kind of engineering; for the only thing that kept the cars from turning over every few minutes was that the track was so adjusted that when one car was turning over to the right the next car would be turning in the opposite direction, and thus they balanced each other like the tight-rope walker's pole.

Fortunately for the railroad and for that magnificent country, that line is to be completely reconstructed; the roadbed built up and relaid with 80 or 85-pound rails. It is difficult to set a limit to the growth which will follow the betterment of the railroad conditions of that section. The Manatee region is already one of the most productive freight-creating sections in the South. It is a veritable Garden of

Eden, but down in Florida there are so many Gardens of Edens it would be invidious to draw comparison and make one spot more perfect than others. As the Seaboard people had not, under former managements, either fully realized the splendid resources of that country or understood the meanness of the accommodations they furnished to it, or else hadn't the money to better these conditions, so it has, to a large extent, been true of other parts of Florida.

There are many sections of that State which yet have wholly inadequate transportation facilities. There are some cars in use on Florida railroads that ought to have gone to the scrap heap a quarter of a century ago. But the railroad people are now realizing more and more the limitless possibilities of Florida. One of the best-known railroad men in the South told me a few months since that it was not until five or six years ago that he and the other officials of his line really took Florida seriously. He said they had thought it good only for a temporary winter tourist business of probably uncertain duration. Now most of the railroad people have waked up to the situation.

* * *

Mr. Flagler, Mr. Parrott and Mr. Ingraham saw it far in advance of many others. Mr. Plant realized, but he passed away before the complete fulfillment of his dreams. If he could return to earth today, the amazing development which has taken place in Florida since his death would in nowise surprise him. Mr. Flagler lived to see his great vision realized and the East Coast become one of the world's most interesting and rapidly developing sections by reason of the faith that was in him and his willingness and ability to back his faith with his millions.

Twelve or thirteen years ago, when Florida, by virtue of a disastrous freeze

and the general depression throughout the country, was in the slough of despond, John Skelton Williams, the creator of the Seaboard system, had the vision to see what few others could then see, that Florida was destined to be one of the great health and tourist centers of the world, as well as one of the great freight-producing regions.

When Mr. Williams bought for the Seaboard the Florida Central & Peninsular Railroad, skeptics as to the wisdom of the purchase were legion; now that move is recognized as the most important step ever made in the strengthening and building up of the Seaboard system.

It is interesting in this connection to note how rapidly the Seaboard is improving its facilities for taking care of travel and freight. It has been short of power; now it has ordered 50 of the most modern locomotives. It has had an inadequate dining-car service; now it is to have thoroughly modern, up-to-date dining-cars. A portion of its road has been overcrowded with business; this is to be double-tracked, and so there is progress in every direction.

* * *

Another Southern road that is spreading out rapidly is the Norfolk Southern. From a few miles of inadequately-built road, there is being developed a splendid system which, when completed, will add greatly to the railroad facilities and thus to the wealth of Virginia and North Carolina. Stretching one line to Charlotte on the westward and looking to Beaufort as a terminus on the east, with the idea of developing a great coal-exporting point there if the plans of the United States Government for making at that point a harbor of refuge shall be carried out, pushing branch lines into other sections and aiding in their development all the territory along its line, the Norfolk & South-

FARMER'S MARKET BASKET LOADS BOTH WAYS.



UNLOADING FARM-PRODUCTS TRAIN FROM PRINCESS ANNE COUNTY.



RETURNING MARKET TRAIN LEAVING NORFOLK.

The successful farmer, like the successful railroad, must solve the problem of how to get a return haul for every outbound load. Many farmers fail to produce the outbound load with which to pay for the inbound supply of farm and family necessities. Not so with farmers in Norfolk Southern Railroad territory. Particularly is this true as to farmers in the vicinity of Norfolk, who so liberally patronize the market trains of the Norfolk Southern, thereby being able to bring their produce from the farm and sell direct to the city consumers. The cash returns from these sales of produce total the farmers along the Norfolk Southern Railroad a return far in excess of that which they must pay for inbound necessities. Nevertheless, it veritably means the market basket loaded both ways, the first load easily exchangeable for the second, and with a surplus. The Norfolk Southern aids the farmers in its territory with every means to make marketing a success. A train, known as the "Truck Special," quickly brings their produce and their people into Norfolk for market purposes, here to meet the consumers who anxiously await the incoming of this market train for the purpose of dealing direct with the producers. By this direct dealing the profits of the middleman are saved, and the consumer has the satisfaction of knowing that his goods are fresh from the field and farm; and at the same time the producer has an opportunity to build up trade directly upon the merits of his products. The service given by the Norfolk Southern Railroad in the way of market facilities is a great inducement to farmers along its lines. This, regardless of whether the trade is a small matter of poultry, eggs and butter, live weight or dressed pork or mutton; or whether it amounts to the more pretentious carload movements of potatoes, cabbage or corn. The encouragement and upbuilding of agricultural interests is the slogan of the Norfolk Southern in its work for the uplift of its territory. The soil is the only real source of wealth; hence there exists no greater possibility for tonnage increase than can be found in the improvement of conditions that will tend to increase agricultural advantages.

ern, under its present ownership and management, is working toward what seems to be a splendid destiny, a destiny good for the two States in which it operates as well as its owners. In one part of the territory along this road drainage or reclamation work has been under way for some years, reclaiming land of exceeding fertility. Some remarkable results have been achieved.

In the Bellhaven section of Eastern Carolina the Wilkinson brothers some years ago put in large dredging boats which cut channels through swamp and overflowed lands, and opened up to cultivation some thousands of acres. The remarkable success of their operations stimulated others, and now men of wealth are investing in the reclaimable lands of that section with a view to the highest development. J. M. Barr, for many years one of the leading railroad men of the country, is developing a large tract and has put his son in charge with a view to carrying on extensive farming operations. A Harvard graduate has recently purchased a large portion, while men from the West and local people have gone into similar operations.

On this land the trees are felled, and early in the spring, when the land is all covered with small bushes that readily burn, a fire is started and is permitted to burn over the entire property. The trees and stumps burn slowly, and sometimes smolder for many days. It is estimated that within three years these trees and stumps will have rotted away. Up to that time no plowing is feasible. Immediately after the spring burning corn is planted in a hole made by a sharp-pointed stick, and is locally known as "stuck corn." The land is warm, and the corn sprouts quickly and grows faster than the weeds. Under such simple and apparently primitive methods of cultivation, but the only kind practicable until the trees or stumps have rotted away, this land produces an average of about 60 bushels of corn per acre, and that, too, with but little cultivation. As the trees and stumps disintegrate and plowing becomes possible, more advanced farming methods are adopted, but even this primitive system of raising corn is in many cases sufficient to pay for the land and its clearing up out of the first crop.

The advantages of that section for hog raising are great, and some of the capitalists who are taking up property of this kind are doing so with a view to going largely into hog raising. This is only another of the thousands of illustrations that indicate something of the almost limitless opportunities in the South for profitable operation in sections hitherto regarded with disfavor.

The Norfolk Southern has a unique train which probably has no duplicate in the United States. On a branch line 22 miles long, running out of Norfolk, it operates every day except Friday a gasoline motor combined freight and passenger car. On every Thursday evening, however, the company sends out of Norfolk a five or six passenger car train which starts on its return early Friday morning. It brings into the city on every Friday about 300 men and women picked up along the route, practically every one having one or two baskets loaded with country produce. Some bring chickens and eggs, some butter, some have vegetables of one kind and another, but all come loaded down with something for sale. They reach the city early Friday morning, carry their produce of one kind and another to the market-stall men, sell what they have and take the proceeds and begin a campaign

of shopping all over the city. In the afternoon the train returns, taking back its 300 or so passengers, their baskets this time loaded with merchandise as diverse as the produce with which they were loaded in the morning.

Some months ago a new official of the road, not familiar with this peculiar train, looked out of his office window at the depot one Friday morning and wondered what had broken loose, as he saw several hundred people scramble out of the train, everyone loaded down with full baskets. Not until then did he know that the road with which he had become connected has a train which probably has no duplicate in the country. Other railroads have plenty of trains that bring the country

people to the city day by day, but so far as known, probably no other road completely changes the entire operation of a branch line for one day, and instead of a single gasoline car, turns to a five or six passenger car train to accommodate the sellers of produce, who, having disposed of it, become buyers of merchandise and go back home with their baskets as liberally loaded with the latter as they had in the morning been loaded with the former. Needless to say, the people along that line are among the prosperous small farmers of this section who not only raise at home the supplies needed for man and beast, but always have ready some surplus with which to buy their dry goods and their groceries.

R. H. E.

Developing Iron and Timber

RICHES IN THE NORTH CAROLINA-TENNESSEE RIDGE OF THE APPALACHIANS.

By HENRY V. MAXWELL.

Counting beauty as an asset, the richest mile of which I know lies in the gorge cut by Doe River, through the quartzites just southward from Hampton, Tenn., and through which winds the East Tennessee & Western North Carolina Railroad, leading from Johnson City, Tenn., to Cranberry, N. C. The trailing arbutus has shed its bloom, and its fragrance has floated away, but the quartzite walls rising sheer hundreds of feet above the mad stream are today aglow with the flaming pink rhododendron which crops from the thousand crevices among the shrubby pines which cling to the rocky steep where azalias interspersed and brilliant colors blend with the cliffs tinted in various hues by the mineral oxides which filter from the rock walls, and iris in great patches of blue lend glory to this wonderful picture of the Unakas. But it is of industries that I shall write.

In the recent purchase from the Ritter Lumber Co. of the narrow-gauge connection extension of the road, the Cranberry Iron & Coal Co. stretches itself to Pineola, and the Linville River upon the southern slope of the Blue Ridge, thus affording easy access to Linville, the summer resort, and lakes teeming with the pride of the waters, mountain trout in their native haunts, and assuring more prompt and comfortable passage to the thousands who in summer seek the cool of this hemlock-laden land. But back to Shell Creek on the line, where has been recently leased and put in operation the magnetic iron property of the Citico Furnace Co. It is leased and optioned to and is being operated by M. F. Miller, a practical miner of Elk Park, who is daily shipping 50 tons to the Carnegie Furnace Co. at Johnson City, the ore being taken from dumps formed some 25 years since, during development work by the owners, as well as from ore in place in the open cuts, which Mr. Miller has reopened, but which ores have not been moved, presumably due to the long haul to Chattanooga, with no advantage to be gained by the basic furnaces in the use of low phosphorous ores in open-hearth practice. Some men are skeptical as to this ore field. Some men have had the temerity to condemn it without an examination and without warrant, and which is a burden the field must bear until properly exploited. Quoting the lessee:

"Several of the cars shipped have averaged 60 per cent., while an average of the whole is 47 per cent. metallic iron, with scarcely any phosphorous, while picked

samples run up to 70 per cent. A four-foot vein runs an average of 60 per cent. without sorting, while a vein uncovered shows a thickness of 50 feet at the surface and yields an average of 47 per cent. as it comes from the mass."

This deposit is the southwestern extension of the Cranberry lead of lenticular bodies, and which is continuous westward almost to the Toe River, and the Carolina, Clinchfield & Ohio Railroad, a distance of some 20 miles, and passing under the shadow of the Roan Mountain, where for the entire distance the ore may be readily traced by cropping, magnetic compasses and shallow openings made, but now inactive.

The purchasers of the Linville extension are replacing exhausted ties, and it is stated will ballast the entire line, change the grades, straighten curves and fill with refuse from the Cranberry mines, such places as may be deemed wise to put the road in first-class condition, as has been done from Johnson City to Cranberry.

The Cranberry Iron Co. is now opening an extension of its ore deposits eastward from the main workings, and good amounts of ore are being found, while they are also prospecting near Elk Park, some two miles westward from the main workings which for many years have supplied the ore needed for the Carnegie furnace, which has been almost continuously in blast during the interval.

At the mines proper the Cranberry company has a complete magnetic separating plant, which is in every sense a success in recovering the values from the low-grade ores, which in former times were lost, and by which process much ore is brought up to a grade acceptable to the furnace operators.

Here also is located a large and well-stocked commissary for the accommodation of the workers, as well as a comfortable well-managed hotel, which supplies the wants of the traveling public and many summer visitors during the season. Residences for the operators and workmen are also located here, and a comfortable, well-lighted amusement hall, where moving pictures and occasional vaudeville entertainments are exhibited and held.

As is the case throughout all western North Carolina counties, the district surrounding Elk Park and Cranberry ranks as high for the production of luscious, beautiful apples of fine flavor as does any portion of the world, while cabbage and other vegetables grow to perfection, and spontaneous growths of wild strawberries

and raspberries reach the limit of perfection in flavor and size, and potatoes raised here possess a flavor that it is impossible to surpass.

The section has appealed to many fruit growers, and several commercial orchards have been planted near Elk Park. Here, too, is published by George F. Rice, "The Avery Vim," a snappy weekly worthy of the name.

Southward 10 miles over the Linville River Railroad we reach "The Old Fields of Toe," which has recently been chosen as the site of the county-seat of the new county of Avery, a model city laid out, a fine courthouse and jail completed and several stores and dwellings finished and in course of construction.

Situated as it is upon a plateau of the Blue Ridge, at an altitude of some 3700 feet, and surrounded by the most beautiful hemlock woods I have ever seen, while much fine oak and other hardwoods occupy the higher levels, and several clear streams which form the Toe River passing between undulating hills offer wonderful opportunities for the building of lakes at small cost for the propagation of trout in their native haunts, together with the assured ideal summer climate, Newland should grow apace. Here the J. Walter Wright Lumber Co. of Mountain City, Tenn., has recently bought from Major J. F. Templeton, representing a Virginia corporation, some 10,000,000 feet of hemlock and hardwood, including a good amount of very fine oak.

The Wright company, being one of the largest operators in this section, is represented by C. V. Von Canon, general manager, who will have headquarters at Elk Park, so as to be in easy reach of their large operations at Sprucepine, N. C., on line of the Carolina, Clinchfield & Ohio Railroad, and the Virginia & Southwestern, in Tennessee. As is the successful practice of the Wright company, circular mills will be at once employed cutting the lumber in the woods, the product then hauled to the railroad for shipment. As is evidenced by the success of this company, the practice of employing small portable mills is in many cases more profitable than in the use of larger permanent mills. While this company will remove much of the surrounding timber, quite a large area of land ideally suited for the planting of orchards and vegetables will be soon available for settlement, thus adding to the population and thrift of the town.

Two miles south and we reach the summit of the Blue Ridge, where is built the village of Montezuma, occupying an altitude of 3882 feet, the highest railroad station east of the Rockies. Distant from Montezuma, some two miles over an easy road, Linville, the popular summer resort, is located, where lakes stocked with trout lie in the shadow of the towering peaks of Grandfather Mountain.

Butler, Tenn.

In connection with the fiftieth anniversary of the battle of Gettysburg in July, the Pennsylvania Railroad has published for general circulation an artistic pamphlet telling the story of the battle, full of half-tone illustrations and carrying a colored bird's-eye view of the field.

Mr. J. S. Tarrer, secretary of the Board of Trade of Manatee, Fla., is anxious to attract the attention of industrial investors to the opportunity in 1,000,000 tons of lime rock near by, which would be valuable when crushed for use upon agricultural lands.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

Bonds Voted.

Baton Rouge, La.—City voted \$225,000 bonds, of which \$90,000 will be expended for paved or graveled streets.

Fairmont, W. Va.—Fairmont District of Marion county voted \$400,000 bonds for road construction; plan to pave 20 miles of road this year.

Huntington, W. Va.—City voted \$180,000 bonds for paving and sewer construction.

Lafayette, La.—City voted \$75,000 bonds for road construction.

Mobile, Ala.—Mobile county authorized issuance of \$150,000 additional bonds for road improvements, etc.

Mocksville, N. C.—Davie county voted \$175,000 bonds for road construction.

Rocky Mount, N. C.—City voted \$135,000 bonds for paving, etc.

Wilmington, N. C.—New Hanover county voted \$100,000 bonds for road construction.

Bonds to Be Voted.

Albany, Ga.—City votes July 24 on \$125,500 bonds for street paving.

Bartlett, Tex.—District No. 2 of Bell county will vote on \$50,000 bonds for road construction.

Clarksville, Tex.—Clarksville precinct of Red River county will vote on \$200,000 bonds for road construction.

Corpus Christi, Tex.—Nueces county will vote on \$500,000 bonds to construct and improve roads.

Fayette, Miss.—First District of Jefferson county will vote on \$50,000 bonds for road construction.

Huntington, Tenn.—City votes July 2 on \$5000 bonds for street and other improvements.

Jackson, Miss.—City votes June 7 on \$60,000 bonds for street improvements.

Pilot Point, Tex.—City and adjacent territory, known as Precinct No. 2, votes June 21 on \$125,000 bonds for road building.

Sanger, Tex.—Sanger precinct of Denton county will vote on \$125,000 bonds for road construction.

Texarkana, Tex.—City votes June 30 on \$225,000 bonds for street and bridge improvements.

Contracts Awarded.

Baltimore, Md.—City awarded contract at \$85,959.50 for vitrified brick paving.

Bastrop, Tex.—Citizens' Committee of Smithville road district of Bastrop county awarded contract at \$65,000 to construct 40 miles of graveled roads.

Durant, Okla.—City awarded contract for construction of proposed 12 blocks asphaltic concrete paving; cost \$42,000.

Knoxville, Tenn.—City awarded contracts at \$27,877.94 for street paving.

Plainview, Tex.—City awarded contract to place concrete street crossings, to be five feet wide in residence section and seven feet in business districts; \$10,000 available.

St. Louis, Mo.—Board of Public Improvements awarded contract at \$37,600 for street paving; Telford paving, with concrete top dressing.

Yoakum, Tex.—City awarded contracts for 10,000 feet of cement sidewalks.

Contracts to Be Awarded.

Baltimore, Md.—State Roads Commission receives bids until June 12 for building seven sections of State highway in

various counties, aggregating 16.58 miles.

Beaumont, Tex.—Jefferson county will construct 50 miles oyster-shell and Uvalde rock asphalt road; \$200,000 available.

Crescent City, Fla.—City receives bids until June 18 to shell driveway eight feet wide and seven inches deep; about 1540 running yards.

Dallas, Tex.—Dallas county plans expenditure of \$60,000 to pave viaduct with creosoted wooden blocks; length 6300 feet.

Danville, Va.—Board of Aldermen appropriated \$40,000 for streets and bridges.

Jonesboro, Ark.—Street Improvement District No. 10 will construct 10,000 square yards brick paving, 5000 linear feet curb and gutter and 300 feet stone header.

Lindale, Tex.—Lindale District of Smith county will construct 150 miles sand-clay and gravel road; \$75,000 available.

Marietta, Okla.—City receives bids until June 11 for construction of about 25,000 yards asphaltic concrete pavement.

Sarasota, Fla.—City will construct four miles of paving, etc.; \$15,000 bond issue available.

Selma, Ala.—City receives bids until June 12 for laying about 16,000 yards Dolanway paving.

Road Builders' Association.

The American Road Builders' Association will hold its next annual convention in Philadelphia December 9-12. The sessions of the convention will be held in the First Regiment Armory. As usual, the association will hold an exhibition, or rather exposition, of road and paving machinery, materials, etc.

TEXTILES

The Cotton Movement.

In his report for May 30 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 272 days of the present season was 13,225,578 bales, a decrease under the same period last year of 2,168,806 bales. The exports were 8,079,050 bales, a decrease of 1,991,789 bales. The takings were, by Northern spinners, 2,236,734 bales, a decrease of 356,063 bales; by Southern spinners, 2,597,635 bales, an increase of 262,633 bales.

Best Knitting Mills.

The Best Knitting Mills, Hickory, N. C., has been organized to establish plant with daily capacity of 150 dozen pairs of hosiery and employing 35 operatives. This company will install 24 knitting machines driven by electric power, the machinery costing about \$3500.

Textile Notes.

C. H. Thomas of the Dallas Waste Mills, Dallas, Tex., will build a cotton-bagging mill.

The Texas State Ginners' Association, F. W. Jackson, president, Dallas, Tex., plans to build a cotton-bagging factory.

A. T. Shepherd and Chas. K. Bryant, architects, Richmond, Va., will prepare plans and specifications for the construction of a cotton mill.

Frank Kell, Wichita Falls, Tex., writes to the MANUFACTURERS RECORD as follows: "We have not yet perfected our organization for the purpose of erecting a cotton mill. We are now soliciting stock subscriptions, and trust to be able to organize a company before a great while." Mr. Kell was recently mentioned as chairman of a committee endeavoring to establish a \$500,000 cotton mill.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

\$12,000,000 FOR IMPROVEMENTS.

Pennsylvania Railroad Contemplates Extensive Terminal Construction at Baltimore.

In consultation with Mayor James H. Preston and other city officials of Baltimore, Samuel Rea, president of the Pennsylvania Railroad, has outlined the purpose of his company to invest \$10,000,000 for Northern Central Railway terminal improvements at Baltimore. In fact, President Rea said that, including the plans at Canton and Bayview, in the suburbs, the necessary expenditure here was estimated at close to \$12,000,000. These betterments will be carefully considered and details finally determined so that construction can soon begin. They are outlined as follows:

Additional main tracks and facilities for handling through traffic; four-track connection between Union Station and Calvert street terminal, southernmost point to be at Bath street; abandonment of Calvert Station for passenger service, or establishment of a passenger station on second floor of terminal at Bath street and passenger trains to reach there on elevated structure above freight tracks; enlargement of freight sheds and building of new warehouses at Calvert street terminal; abandonment by city of various streets and deeding to railroad company; construction of overhead bridge, 50 feet wide, on southerly side of Madison street, extending from Calvert street to Constitution street, which will avoid all grade crossings of railroad tracks; proposed bridge passing under Guilford avenue electric railroad viaduct with overhead clearance of 13 feet; widening Bath street from 40 to 70 feet between Calvert street and Guilford avenue, additional 30 feet to be given to city.

It is also contemplated to either bore additional tunnels alongside the present Union and Potomac tunnels to accommodate through north and south freight traffic, or to bore tunnel under Patapsco River, which would make possible a freight cut-off south and east of the city. But it seems probable that the latter plan will be adopted, as making wider tunnels or constructing other parallel tunnels through the city is deemed impracticable, on account of the necessary cost and public objection to such work.

The proposed enlargement of the Calvert Station terminal, which is near the heart of the city, will receive considerable attention from the city authorities before they give reply to the propositions submitted by the railroad company. At present the Calvert Station yard touches Calvert street for only one block, and this section is used for accommodating passenger cars; in fact, there is hardly a full block devoted to this purpose, for an office building of the company occupies one corner of the block, in which tract the station building itself stands askew, its front being obliquely on Franklin street. But the proposition of the railroad company, if fulfilled, will cause the Calvert Station yards to abut on Calvert street for the length of four blocks from Bath street to Madison street, and will require the complete closing to the public of Franklin, Center and Monument streets, the first named being only one block long east of Calvert street, where it is to be closed, but the closing of Center street would shut off one cross-town route to the Western Maryland Railroad Co.'s yards and station and the closing of Mon-

ument street would eliminate another east and west thoroughfare. In their place a viaduct in Madison street is proposed. The yard enlargement would wipe out two blocks of dwellings from Center to Madison streets on the east side of Calvert street, and another block of stores and dwellings from Franklin to Bath street, and present a more or less undesirable outlook to Loyola College and St. Ignatius Church, which are on the west side. Considerations for the effect of the proposed changes upon environing property will be entertained by the city in its deliberations over the railroad plans.

It is the wish of the railroad company to begin work upon the Calvert Station improvement as soon as possible, and it seems probable that facilities for handling passenger traffic will be established at the corner of Calvert and Bath streets as outlined. The station is within a few minutes' walk of the business center of the city, and numbers of persons use trains to and from their homes in the suburbs and in the country. Several years ago a proposition to stop the suburban trains at Union Station, a mile farther uptown, raised a storm of protest, and it was abandoned. Now the projected improvement will give four tracks between Union and Calvert stations, and the completed yards will be two blocks wide and four blocks long, with the passenger terminal in the southwestern corner of the area and one block nearer downtown than now. Freight sheds and warehouses will be built at convenient points, some of the present buildings being razed.

As for the other work contemplated by the railroad company, it will wait until after that at Calvert Station is either wholly or nearly finished. It is desired to make a classification yard at Bayview Junction, which is just outside of the city to the east, and there are also valuable improvements proposed at Canton, a suburb, where the principal tidewater terminals of the road are situated.

One other plan which the company is considering will, if adopted, result in the construction of a tunnel under the Patapsco River at or near the entrance to the harbor of Baltimore, this to be used by a connecting line from Canton or near there to some point on the line between Baltimore and Washington. This contemplated tunnel and railroad would provide a cut-off so that a large number of freight trains which are now operated through the Union Station yards could be advantageously diverted and thus relieve the congestion there, which is steadily growing worse with the increase of business. Soundings are being made in the river to discover the nature of the bottom, in order to determine the nature of the construction required for the building of a tunnel.

BIG ELECTRIC PLAN.

Norfolk & Western Railway's Installation to Haul Coal Trains Over Heavy Grades.

The Norfolk & Western Railway Co. has authorized and is proceeding with the electrification of a 30-mile section of its main line from Bluefield, W. Va., to Vivian, W. Va., and the undertaking is expected to show important traffic and economic results in handling its very heavy and rapidly increasing freight business.

The electrified section constitutes practically a separate gathering division for the coal traffic from the Pocahontas region, and comprises about 30 route miles, or about 85 track miles. The division is double-tracked throughout, except in the Elkhorn tunnel, which is single-tracked, and with a large amount of third or pass-

ing siding track and branches into the coal workings. The grades are heavy, being from 1.5 to 2 per cent. eastbound to and through the summit tunnel, a distance of about 10 miles; thence the grade falls for about a mile, and then rises again at the ruling rate of about .4 per cent. for approximately 12 miles to the east end of the division at Bluefield. The heavy coal business originates west of the summit, and is in large part hauled eastward over the grades above noted. The coal trains originating on the division are filled out generally to a weight of 3250 tons from the various workings along the line and hauled over the grades at a speed of about $7\frac{1}{2}$ miles an hour by three Mallet engines, one at the head end of the train and two pushing. The Mallet engine equipment is used locally on the division in question, and under electric operation these engines will be displaced by electric engines, allowing the Mallets to be used on the other regular divisions of the road.

It is not the intention at present to conduct the through merchandise freight or passenger service by electricity, the electric service being confined to traffic designated as "tonnage trains" originating on the electrified section. These tonnage trains of 3250 tons will be electrically operated by head engines and pushers at a speed of about 13 miles per hour up the heaviest grade. The number of trains handled up the grade will be about 20 per day, comprising a daily tonnage of 65,000, but the design of electrical equipment will be such that this tonnage can be progressively increased in the future as the occasion requires.

An overhead electrical conductor will be used to convey current to the trains, the local conditions precluding the use of the third rail alongside the tracks. The characteristics of the current to be used in the locomotives has not yet been decided upon, as plans and estimates are being made for the use of either alternating or direct current locomotives, according to which design proves most adaptable to the service and cheapest in first and operating costs.

Electric power will be generated in a steam power-house to be erected by the company at Bluestone, which is on the line of the railway about one-third the way from Bluefield to Vivian. This power-house will have an installed capacity at present of 24,000 kilowatts. All work is to be completed for service in the summer of 1914.

It will be seen that the local conditions are especially favorable for electric haulage; the traffic is dense and of heavy train units operating at fairly uniform intervals over a section of the main line which is practically a separate engine division at present, and can be conducted in the same way electrically without increasing the cost of engine service on the other sections of the line. Electric power can be generated at an unusually low cost because of the fact that excellent coal is obtainable at the point of origin. Other conditions conducive to high economy with electric traction are the train service, which is such that a minimum of electrical equipment can perform the haulage in practically continuous service; fewer engine crews per train than with steam, and the higher speed of operation over the division will be nearly double that possible with present steam equipment. Delays due to taking water, coal, etc., in steam operation will also be eliminated, and the reliability of locomotive operation will be increased under certain conditions of weather. These conditions result in reduced operating cost and allow a large increase in capacity of the line in times of congestion and in the future;

this is especially important, even at the present time, in the Elkhorn tunnel, which is single track, and in which, because of ventilating conditions, steam locomotives limit the speed.

Gibbs & Hill, consulting engineers, Pennsylvania Station, New York city, are in charge of the work, which they designed and will supervise.

KENEFICK'S ROAD ADVANCES.

Extension to Oklahoma City Will Begin in the Fall—Shops at Muskogee.

[Special Cor. Manufacturers Record.]

Muskogee, Okla., June 2.

The Missouri, Oklahoma & Gulf Railroad Co. has accepted a bonus of \$70,000 from the citizens of Muskogee and located the general shops of the company in this city. Contracts have been let to Rooney & Culp for the construction work on the buildings, and a force of men are now engaged in grading, excavating and laying drain tiling, water mains and sewers on the building site, which is located in the north end of the city.

From the office of Daniel Breck, general manager, information is given out that the improvements contemplate one large building, steel frame constructed, and two smaller structures, the total cost being about \$150,000. The site is that used by the company for the temporary shops during the construction of the line north to Baxter Springs, Kans., and south to Denison, Tex. There will be only about three miles of additional switches necessary in the local yards.

This road is now operating trains from Sherman, Tex., to Joplin, Mo., using the Texas Pacific from Sherman to Denison, Tex., its own line to Baxter Springs, Kans., the Frisco line to the Joplin corporation limits and the Missouri Pacific terminals in that city. A feature is the operation of the Dracar by the passenger department, a combination gas and electric car, five of which are in service and two more are now being constructed for immediate delivery.

The Missouri, Oklahoma & Gulf Railroad Co. some time since made a proposition to enter Oklahoma City with an extension from the main line from Henryetta, Okla., and at a conference of officials of the road and business men of Oklahoma City on May 26 M. Parville, consulting engineer for the French capitalists who are financing the road, announced that active work would begin on the extension probably in September or October. The proposed extension and equipment is estimated to cost about \$4,000,000, and, according to M. Parville, the delay in beginning work has been occasioned by the condition of the money market in Europe as a result of the Balkan War. Oklahoma City has raised a bonus of \$75,000, and contributors to the fund are anxious to have the line completed as soon as possible.

Improvements decided upon by President Wm. Kenefick and other officials at a conference held in Muskogee include an extension to East Muskogee, with switch tracks to the plant of the Eagle Manufacturing Co. and the other industrial plants there.

General Manager Breck, who has recently taken charge of the road, is of the Selden-Breck Construction Co., and is well known in railroad and construction circles.

CLARENCE B. DOUGLAS.

New Equipment, Rails, Etc.

Baltimore & Ohio's equipment order under the \$10,000,000 of trust certificates just authorized will be for 60 Mikado locomotives, 60 Pacific locomotives, 10 Mallet locomotives, 1822 steel gondola

cars, 8 steel postal cars and some minor additions to rolling stock. The company is reported to have ordered 7 postal cars from the American Car & Foundry Co., St. Louis.

International & Great Northern Railroad, according to a market report, will buy 200 coal cars.

Charlottesville & Albemarle Railway, Charlottesville, Va., has ordered from the "Near Side Car Co." 5 near-side, one-man, single-truck cars, to be delivered in October. They will be built by the J. G. Brill Company, Philadelphia.

Louisiana Railway & Navigation Co. has ordered 3 freight locomotives from the Baldwin Works, Philadelphia, and 50 steel underframe box cars.

Chesapeake & Ohio Railway has ordered 2000 coal cars from the Standard Steel Car Co., Pittsburgh.

Baltimore & Ohio Railroad has ordered 3000 tons of steel from the American Bridge Co., New York.

Missouri, Kansas & Texas Railway, says a report, has ordered 330 tons of bridge steel from the Wisconsin Bridge Co.

Santa Fe system has ordered 4000 tons of rails from the Maryland Steel Co., Sparrows Point, Md., which are being delivered.

International & Great Northern Railroad, according to a report from New Orleans, has ordered 1000 cars (box, ventilator, gondola and stock) from the American Car & Foundry Co., St. Louis.

A \$2,000,000 TERMINAL.

Fine Accommodations Planned for Interurban Railways Entering Dallas, Tex.

Engineers for the Stone & Webster Corporation, according to a report from Dallas, Tex., have announced the detailed plans for the construction of the interurban railway terminal station to be erected there at the intersection of Jackson and Browder streets, which, with the track arrangements, it is estimated, will cost about \$2,000,000. Construction is to begin in a few weeks.

There will be a building for offices and other purposes. It will be nine stories high, and with the train shed will extend 270 feet on Browder street and 200 feet on Jackson and Wood streets. The floor space will total 155,000 square feet. The train sheds will have a capacity of 35 interurban trains at one time, for all the lines entering the city are expected to use the terminal. This will include the line to Fort Worth, the line to Sherman and Denison, which are owned by Stone & Webster; also the lines of the Southern Traction Co. to Waxahachie, Corsicana and Waco, and of the Eastern Texas Traction Co. to Greenville and other points, besides lines projected and on which construction is not yet begun.

The building will be built of pressed brick and terra-cotta, and the flooring will be of terrazzo, a kind of inlaid work. There will be three passenger elevators. The waiting-room will be upon the ground floor, part of which will be devoted to stores. In the train sheds there will be concrete platforms between the tracks. An independent power and lighting plant will be in the basement. The local offices of Stone & Webster will have space in the building.

TWO IMPORTANT EXTENSIONS.

Virginia-Carolina Building 40 Miles Through Mountains and Its Sister Line 15 Miles.

President W. E. Mingea of the Virginia-Carolina Railway Co. and the New River, Holston & Western Railroad Co., Abingdon, Va., says that the extension of the Virginia-Carolina Railway will be a

very rough piece of mountain work and will open up a new country to transportation facilities. The extension will be from Green Cove Creek to Jefferson and Todd, N. C., about 40 miles, and will go across Washington and Grayson counties, Virginia, into and across Ashe county, North Carolina, and into Watauga county, also in North Carolina.

The New River, Holston & Western is also being extended from Rocky Gap, Va., along Wolf Creek and Hunting Camp Creek into an undeveloped and virgin timber country, the terminus being Suiters, 15 miles from Rocky Gap. The chief engineer under whose supervision the work is being done is P. W. Early of Abingdon.

Extending to Corpus Christi.

The San Antonio, Uvalde & Gulf Railroad Co., of which A. R. Ponder is vice-president and general manager at San Antonio, Tex., has issued a new map showing its lines, which are being extended to Corpus Christi, Tex. The line now runs southward from San Antonio, bending westward at Fowlerton, 78 miles out, and continuing to Crystal City, 145 miles from San Antonio. There it strikes the original line of the road running north and south between Carrizo Springs and Uvalde, 53 miles. This, from Crystal City to Uvalde, 41 miles, is operated as a separate division, the 12 miles from Crystal City south to Carrizo Springs being part of the present main line from San Antonio.

The extension to Corpus Christi is from Pleasanton, 34 miles south of San Antonio, and the route chosen is via Campbellton, Oakville, Mathis and other points. Some track has been laid, according to recent reports, and grading is proceeding with the intention of completing the road as far as Mathis, in San Patricio county, this summer.

The company was recently authorized by the Texas Railroad Commission to issue \$2,863,000 of 5 per cent. first mortgage bonds, with the Bankers Trust Co. of St. Louis as trustee.

Sale of a Railroad.

[Special Cor. Manufacturers Record.]

Winchester, Ky., June 2.

A deal has been closed by Floyd and John Day of this city transferring their holdings in Eastern Kentucky to New York parties, the transaction involving over a million dollars. It includes the Mountain Central Railroad, 13 miles long, a narrow-gauge line running from Camp-ton Junction to Campton, as well as stores, mills, coal and timber lands on the new extension of the Lexington & Eastern Railway. The Messrs. Day will retain an interest in the new company and will have the management of it.

J. L. OLDHAM.

Brinson Railway Work.

James Imbrie, chairman of the board, Brinson Railway Co., 45 Broadway, New York, says that at the recent meeting of directors in Savannah an expenditure of about \$125,000 for general improvement work was approved. This includes revision of grades and track betterments, and is expected to be done this summer. Mr. Imbrie adds that this new work was approved coincident with the approval of a contract between the Brinson Railway Co. and the Great Eastern Lumber Co., which should very largely increase the traffic of the line.

At Savannah a notice signed by Y. E. Barger, secretary of the railroad, is published calling a meeting of its stockholders there on June 21 to authorize the issue of not more than \$5,000,000 of its

first and refunding bonds. This is the proposed financing heretofore mentioned, which contemplates an early investment of not more than \$1,000,000 in the property. The rest of the bonds will, it is presumed, be held in the treasury to be issued from time to time for extensions or other improvements.

Blue Ridge Interurban Railway.

The Blue Ridge Interurban Railway Co., which proposes to build an electric railway from Hendersonville, N. C., via Saluda, N. C., to Spartanburg, S. C., about 50 miles, is, according to a late report, backed by John Law, Walter Montgomery, Horace Bomar, Alexander White, George Ladshaw and Joseph Lee, all of Spartanburg, and Wm. A. Law of Philadelphia, the latter being an officer of the First National Bank of that city and the others being business and financial men at Spartanburg. Mr. Ladshaw is engineer for the company.

It is stated that the purpose, besides the construction of a railway, is the building of a large hydro-electric development on the Green River, in North Carolina, and it is intended to ultimately extend the road to Rutherfordton and Asheville, N. C. The plans include, according to reports, the erection of a dam of immense proportions on Green River, which will be used to operate the electric generating machinery necessary to fulfillment of the enterprise. At present there is a contest in the courts over water rights.

A Street Railway Receivership.

The Richmond & Henrico Railway Co. of Richmond, Va., operating a street-car line, has been placed in the hands of a receiver upon the application of the Union Trust Co., Ltd., of Toronto, Canada, which is the trustee for the \$1,250,000 of 5 per cent. 20-year bonds of the road. The Virginia Trust Co. was appointed receiver by the court at Richmond. The petition for the receivership alleged that the company was insolvent and that the road did not pay operating expenses, and was unable to pay interest due upon the bonds. W. S. Forbes is president and John C. Hagan secretary and treasurer of the line, which is eight miles long, and connects with the lines of the Virginia Railway & Power Co. Samuel L. Kelley is its counsel. It has had in contemplation construction of lines in addition to that now operated. The receivership, it is said, will save to the property a valuable light and power franchise.

Corinth & Northeastern Railway.

Clopton Thomas, Corinth, Miss., who is one of the directors of the proposed Corinth & Northeastern Railway, says that the line is to extend from Corinth 22 miles to a point near Hamburg, Tenn., and it is to connect later with a line to be constructed from Nashville. The route lies through rolling country. It is not yet determined when bids will be received for construction or equipment. The incorporators are business men of Corinth. Abe Rubel is president and H. M. McAmis is secretary. Others interested include Russell Dance, G. A. Hazard, H. N. Young, W. D. Conn, J. A. McAmis, R. L. Young and W. E. Small.

To Enlarge Yards at Birmingham.

The Louisville & Nashville Railroad Co., according to a report from Birmingham, Ala., will make extensive improvements to its shops and yards at Boyles, in the suburbs, enlarging them to almost twice their present size and establishing there a foundry, which will be practically a locomotive works. Construction is to begin soon.

FOREIGN NEEDS

For Argentine's Trade.

Julio G. Olive, Rosario, Argentine, writes to the MANUFACTURERS RECORD:

"I act as agent to sell domestic and foreign goods on commission. I have a factory here for making purses, bags, etc., out of paper, silk and other material. I am interested specially in maintaining commercial relations with the United States, and I am doing everything possible to aid their industries so far as they bear upon the Argentine. This I can readily do because I have numerous connections here and constantly push operations in the republic through traveling representatives who are well acquainted with the needs of our country. I should be glad to take hold of goods in any line, and in such way as would be profitable to both the manufacturers and myself. The advantages I can offer your producers are fine storehouses for goods; central office and showrooms connected with it; capable drummers who leave no part of this country unvisited. The United States consul, R. S. Crane, is my close friend, and I am sure would be pleased to give you further information."

Wanted for German Trade.

A. D. Verschoor, Steglitzer Str. 62, Berlin, Germany, writes to the MANUFACTURERS RECORD:

"Especially I have interest for the following kinds of machines: Textile machines, as f. i. knitting machines, etc.; cotton machines; gas, gasoline or oil engines; bolts, nuts, rivets, etc. You would greatly oblige me by selecting, without any expense or obligation on my part, list of firms which want to be represented in Europe, and the machines which are not too expensive and have some special first-class future, as the prices will be rather increased by freight, duty, insurance and emballage for ocean shipment. On account of the lower prices and more favorable terms, I should prefer to deal with well-known manufacturers, and not with dealers and jobbers."

"Caterpillar" Tractor Equipment.

Tateish Trading Co., No. 7, Minami-Daikucho, Kiobashi-ku, Tokyo, Japan, writes to the MANUFACTURERS RECORD:

"We beg you to notify proper firms making so-called 'endless railways,' like the picture enclosed. We want only chain or rail to be attached for wheels, so that the latter can roll on always on this rail or endless chain, thus protecting itself from sticking into mud or rolling on always on this smooth rail instead of rough road. We hear this originally came from America, and we like to have this rail apparatus from the originating country." (The pictures mentioned show tractors equipped so that the wheels roll on the chain, which forms a smooth road.)

Wants Cottonseed Oil.

S. D. Demetriades, Samsoun (Mer Noire), Black Sea, writes to the MANUFACTURERS RECORD as follows:

"In view of the large amount of American cottonseed oil which is being imported into this country in recent years, more particularly within the last 12 months. I have the honor of requesting you to give me the addresses of the principal export houses in your country engaged in handling this article. I wish not only to strengthen the commercial relations which I already have, but to get new ones and to become the representative agent at this place for a good cottonseed-oil factory."

MECHANICAL

Tennessee Metal Culvert Co.'s Product

The accompanying illustration shows one of the many large shipments of American ingot iron corrugated culverts manufactured by the Tennessee Metal Culvert Co. of Nashville, Tenn., and shipped throughout its territory. The excellent record established by American ingot iron for making corrugated culverts is reflected in the wide distribution and extensive sales made by the Tennessee company. The large demand for culverts in road building throughout the South has an important bearing on the manufacture and output of these culverts. American ingot iron corrugated culverts have established a record for durability, which, combined with the low cost of construction, gives them a wide field.

In a catalogue recently issued by the company an illustration is shown of a corrugated metal culvert near Crawfordsville, Ind., which was installed in 1896. It is made of charcoal iron, which has long been known for its rust-resisting qualities, and its endurance is an indication of what may be obtained by the use of American ingot iron which is made to attain a very high percentage of pure iron.

These culverts have been tested in many

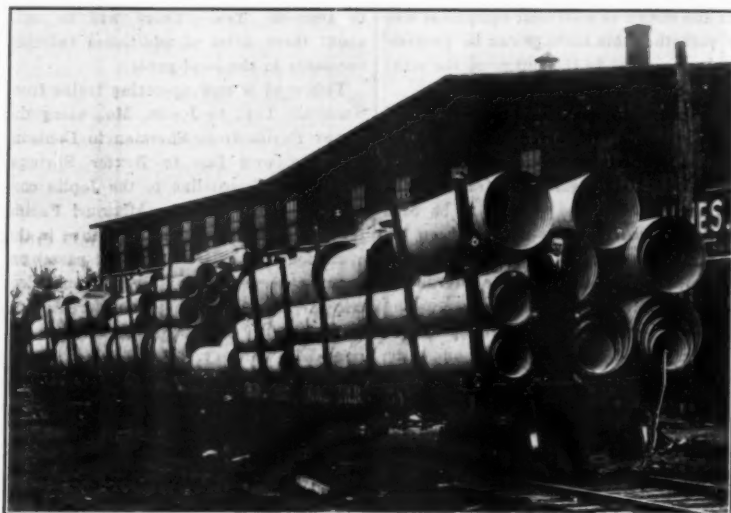
of type G-11 and the other battery of 11 cells of type F-9. The entire power plant in which these batteries were located was submerged in the muddy water of the Miami River about 6 o'clock on the evening of March 25, and remained under water until the evening of the 27th.

During this submersion the batteries continued to furnish the necessary current for signalling and transmission from the time of their submersion up until 3 o'clock A. M. on the 27th. As soon as the water had subsided sufficiently to allow an inspection, voltage and gravity readings were taken on the first set and showed three volts for the entire 11 cells and a specific gravity excellent.

As soon as the power plant could be put in commission, which was at 1.25 P. M. on the 29th, the batteries were put on charge, and continued so until about 10 P. M. on the same day without there having been any repairs of any kind made on these cells. The charge received during this time continued to operate the exchange during the remainder of the night and well into the next day.

A One Handle Hot and Cold Water Faucet.

A device by means of which a combination of hot and cold water may be provided from a single faucet, the temperature to be regulated as desired by increas-



RECENT SHIPMENT OF CULVERTS FROM TENNESSEE METAL CULVERT CO.

practical ways, as well as in the laboratory and by the testing machine. They are extensively used by railway companies in the construction of roadbeds, and since the companies maintain accurate records of the efficiency of materials used, this is an indication of their durability and economy. They are made in sizes from 8 inches to 84 inches in diameter. The Tennessee company is distributing a gun-metal watch fob of appropriate size and design showing its well-known trademark in relief. American ingot iron is made by the American Rolling Mill Co., Middletown, O.

Storage Batteries Under Flood Conditions.

A striking proof of the reliability of storage batteries and of the fact that they will operate under adverse conditions is shown in the experience of the Cincinnati & Suburban Bell Telephone Co. of Cincinnati during the recent flood in the Ohio Valley.

The company has two batteries of the "chloride accumulator" type manufactured by the Electric Storage Battery Co., Philadelphia, in their exchange in Hamilton, O. One battery consists of 11 cells

ing or decreasing the proportions of the water, has been designed and patented by James C. Sanders, 211 Washington avenue, Macon, Ga. By means of this valve either hot or cold water may be admitted first, in part or full flow. Another feature is that it may be opened or closed from either right or left, the inner casing revolving completely and reversing completely, thus requiring no stop pin.

The inventor states that this device can be connected inside or outside of bathtub, for shower baths, for kitchen or laundry sinks, lavatories, laundry washing machines, hot air or steam dryers, gas ironers, etc.; that entering and discharge pipes can be connected close to the mixer, and the discharge pipe is connected the same as an ordinary faucet; that no springs are used, and that the space required for installation is small.

To Build Big Mill.

The Atlantic Coast Lumber Co., Georgetown, S. C., is having plans prepared for rebuilding its plant recently burned. Its new buildings will be of steel and reinforced concrete construction, equipped with machinery for a 24-hour capacity of 500,000 feet of lumber.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Ga., Macon.—City is asking bids, to be received until June 24, for previously-noted repairs on Spring St. bridge; plans by J. J. Gaillard, City Engineer; estimated cost \$13,000. (See "Machinery Wanted.")

Ky., Henderson.—Henderson County Commissioners awarded contract to Harry Bros. of Covington, Ky., to construct metal culverts for roads; estimated cost \$4000.

Ky., Lexington.—Central Construction Co. of Lexington is lowest bidder at \$63,000 to construct viaduct over tracks at Jefferson St. for Louisville & Nashville Railroad. (Further facts lately noted.)

La., Shreveport.—Caddo Parish Police Jury awarded contract to F. C. Barbour of Echo, La., to build approach to Red River wagon bridge at Shreveport; cost about \$10,000.

S. C., Florence.—South Carolina Western Railway, W. R. Bonsal, president, Hamlet, N. C., will construct overhead steel bridge; length one mile; concrete and steel piers.

Md., Baltimore.—Board of Awards let contract to Stewart-Jones Company of Rock Hill, S. C., and Claiborne, Johnson & Co., 901 Calvert Bldg., Baltimore (bidding jointly), at \$190,693.15 to construct Fallsway viaduct over tracks of Northern Central Railway from Madison St. to Guilford Ave. and Biddle St.; reinforced concrete construction; width 75 feet from building line to building line; driveway 50 feet wide; two sidewalks, each 12½ feet; two pilasters 20 feet high at each entrance, having orna-

mental brackets for electric lights; Calvin W. Hendrick, American Bldg., prepared plans and will continue as consulting engineer. (Call for bids lately noted.)

Md., Baltimore.—Pennsylvania Railroad Co., A. C. Shand, chief engineer, Philadelphia, Pa., submitted proposition to Mayor James H. Preston and city officials for Northern Central Railway terminal improvements, to include construction of bridge 50 feet wide on south side of Madison St., between Calvert and Constitution Sts. (See "Railway Stations, Terminals, Roundhouses, etc.")

Tex., Corsicana.—Navarro County Supervisors will construct concrete bridges in connection with road macadamizing; Fred A. Jones Company, engineer, Houston, Tex. (See "Road and Street Work.")

Tex., Temple.—Temple, Northwestern & Gulf Railway Co., W. S. McGregor, vice-president and general manager, will build several steel bridges on proposed 100-mile railroad between Temple and Dublin, Tex.; contracts under company supervision. (See "Machinery Wanted.")

Tex., Texarkana.—City votes June 30 on \$225,000 bond issue for bridge and street improvements. Address The Mayor.

Va., Danville.—Board of Aldermen appropriated \$40,000 for bridges and streets; J. O. Magruder, City Engineer.

Va., King William.—King William county will erect proposed steel approach to Indian Fable bridge on King William side of Pamunkey River; approach 150 feet long by 12 feet wide; concrete abutment and pillars; bids received by Board of Supervisors, B. C. Garrett, clerk, until June 23. (See "Machinery Wanted.")

Va., Portsmouth.—City invites bids until July 1 for reinforced concrete Gosport

135x40 feet; about one-half to be two stories high; foundation of reinforced concrete; building of mill construction; cost \$12,000 to \$15,000. (Previously mentioned.)

CLAYWORKING PLANTS

Ala., Tuscaloosa.—Bricks.—W. M. Berry of Columbus, Ga.; S. F. Alston, C. W. Lewis, W. W. Brandon and others of Tuscaloosa will acquire and improve Laycock brick plant.

Mo., Vale (not a postoffice).—Bricks.—Vale Brick Co., George C. Stephens, president, Kansas City, Mo., will build plant with daily capacity 75,000 bricks.

S. C., Columbia.—Brick, etc.—Columbia Vitified Clay Products Co., capital stock \$100,000, is being organized by T. C. Williams of Williams Realty Co., Columbia; James P. Williams of St. Louis, Mo., and others; will establish plant to manufacture paving and building brick, wire conduits, and possibly vitrified sewer pipe and hollow tile for fireproof buildings; will develop clay deposits. (Recently mentioned.)

COAL MINES AND COKE OVENS

Ala., Jasper.—Alabama Mineral Land Co., American Trust Bldg., Birmingham, Ala., advises will not develop 12,000 acres Walker county land recently noted purchased; bought for investment.

Ala., Pierceville (not a postoffice).—Pierce Coal & Lumber Co., Birmingham, Ala., will develop coal mine with daily capacity 1000 tons.

Ky., Harlan.—Rex Coal Co., capital \$5000, incorporated by C. V. Bennett, N. H. Bennett and Dr. F. H. Bennett.

Ky., Louisville.—Big Four Magnolia Coal

PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

PUBLISHED ON PAGES 96 and 97

In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.

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bridge on 1st St., about 65 feet wide and 21 or 10-foot span; also two reinforced concrete culverts, 166 and 310 feet long, respectively, at north and south ends of Dinwiddle St.; V. O. Cassell, Jr., City Engineer. (See "Machinery Wanted.")

W. Va., Huntington.—Ohio Valley Electric Co. awarded contract to American Bridge Co., 30 Church St., New York, to construct bridge across Fourpole Creek; steel and concrete; length 600 feet; cost about \$35,000.

W. Va., New Martinsville.—W. C. Cushing, chief engineer maintenance of way Pennsylvania lines, Pennsylvania Station, Pittsburgh, Pa., advises that company will not construct bridge across Ohio River between New Martinsville and Duffy, O. (Recently noted.)

W. Va., Point Pleasant.—Mason County Commissioners will build concrete bridge over Old Town Creek; John Maddox prepared plans and engaged as engineer.

CANNING AND PACKING PLANTS

Ky., Eubank.—Eubank Canning Co., Ralph Dally, president, awarded contract to Hastings Industrial Co., Chicago, Ill., to erect canning plant; 24x80 feet; wood; cost \$2000; cost of machinery, \$2500; daily capacity, 10,000 cans of tomatoes; A. F. Howe, engineer in charge, Allegan, Mich. (Recently noted incorporated with \$10,000 capital stock.)

Miss., Wiggins.—American Pickle & Canning Co. will rebuild plant burned at reported loss of \$50,000; ordered machinery.

Okla., Hulbert.—Hulbert Canning Co., capital stock \$1000, incorporated by Carl M. Camp, J. A. Rogers, W. A. Thomas and others.

W. Va., Nicolette.—Nicolette Canning Co. has plans and specifications for cannery;

Co., capital \$20,000, incorporated by R. F. Harrison, E. J. Harrison and Paul Blackwood.

Ky., Barbourville.—Mineral Development Co., main office at Philadelphia, Pa., is reported as preparing to begin developing its 50,000 acres coal land in Letcher and other counties, investing several million dollars to open mines, install machinery, build houses, etc.

Ky., Winchester.—Floyd and John Days transferred holdings to New York capitalists; more than \$1,000,000 involved; properties include Mountain Central Railroad, coal and timber lands, etc.; Messrs. Days retain interest and will manage developments.

Tenn., Richard City.—Tennessee River Realty Co., capital stock \$150,000, incorporated by Charles C. Moore, O. P. Darwin, J. H. McCallum, R. Frank and H. Loeffler, all of Chattanooga, Tenn.; controls 5000 acres in Marion county, five miles from Richard City, and plans developments, including operation of coal mines.

Va., Bristol.—Charles F. Hagan, trustee of Hagan property (30,000 acres coal land) in Scott county, will divide into suitable leases for immediate development; Mr. Hagan controls water-powers which will be developed to transmit electricity for mining more than 2,000,000 tons coal annually.

Va., Stonega.—Virginia Coal & Iron Co. plans development of coal mines along Guests River.

W. Va., Lex.—Lex Pocahontas Coal Co. (recently noted incorporated, \$25,000 capital stock) has main office in People's Gas Bldg., Chicago, Ill.; J. H. Harmon, president and treasurer; C. A. Reynolds, secretary; both of Chicago; J. F. Taylor, vice-president.

CONCRETE AND CEMENT PLANTS

Ky., Kosmosdale.—Portland Cement.—Kosmos Portland Cement Co., sales office, 614 Paul Jones Bldg., Louisville, Ky., will increase capacity from 1200 to 3000 barrels daily; is erecting new plant; work includes installation of steam turbine in power line, new boiler-house equipped with stokers, kilns 8½x125 feet, and stockhouse over 400 feet long; latter to be equipped with modern bag-filling machines; contract awarded to Dugan Engineering Co., Equitable Bldg., Louisville, Ky.; will open new quarry at King's Landing, Ky.; to have face over 100 feet long and 125 feet high; steam shovel will be operated; contract awarded for No. 12 crusher; storage for crushed stone will be carried through system of conveyors electrically operated; 500-ton barge loaded in two hours. (Tentative plans recently noted as being considered.)

COTTON COMPRESSES AND GINS

Ala., Scottsboro.—Scottsboro Light & Power Co. will build recently-noted cotton gin. (See "Electric Plants.")

Okla., Holdenville.—Holdenville Cotton Compress Co., capital stock \$15,000, incorporated by M. E. Gilbert, C. C. Leach, Ed Arnold, J. A. Russell and A. M. Loftis.

Okla., Stonewall.—Farmers' Co-operative Gin Co. (recently noted incorporated, capital stock \$12,000) will erect fireproof buildings; cost, etc., not decided; construction by day labor; install machinery costing about \$6000; L. M. Chandler, president; J. A. Westbrook, vice-president; F. H. Flippen, secretary; Albert Gill, manager, Box 223. (See "Machinery Wanted.")

S. C., Florence.—S. Mack Gregg will build cotton compress; operated by electricity, power to be furnished by Florence Electric & Utility Co.; machinery purchased.

COTTONSEED-OIL MILLS

Ala., Jasper.—Jasper Oil & Fertilizer Co. organized; \$25,000 capital; purchased Farmers' Union warehouse and will use for factory; address W. E. Preston, Jasper Trust Co.

Okla., Hobart.—Baker Cotton Oil Co. organized; W. U. Baker, president; L. H. Duncan, vice-president; W. C. Baker, secretary-treasurer; will operate cold press mill; cost \$15,000; concrete, wood and iron construction; daily capacity, 20 tons of cottonseed; H. E. Pool, engineer. (Recently noted incorporated with \$30,000 capital stock.)

S. C., Cheraw.—Cheraw Oil & Fertilizer Co. (recently reported incorporated with \$75,000 capital stock) organized with H. M. Duvall president, O. M. Pegues and J. A. Watson vice-presidents, M. B. Criger general manager; will build cottonseed-oil mill; acquired fertilizer plant and will operate.

Tex., Celina.—Farmers' Cotton Oil Co. organized; B. F. Smith, president; S. J. Lewis and J. C. Ousley, vice-presidents; J. E. Lipscomb, secretary; K. S. Loving, treasurer; capital stock \$30,000; operate cold process cottonseed-oil mill; construction by Western Engineering Co., Dallas, Tex.

Tex., Dallas.—Edgar L. Flippen (president Armstrong Packing Co.) and associates are organizing company with \$150,000 capital stock to build crude cottonseed-oil mill.

Tex., Lewisville.—Company organized with \$75,000 capital stock to build cottonseed-oil mill; machinery ordered; W. P. Davis and J. M. Melvin of Roanoke, Tex., will be local managers.

Tex., Waxahachie.—Planters' Cotton Oil Co. will erect five-story concrete and steel building to be equipped with separating machinery; building to cost \$5000 and machinery \$5000.

Tex., Fort Worth.—Riverside Cotton Oil Co., W. J. Hefley, president, will build cottonseed-oil mill and storage-house in Riverside; storage-house, 60x200 feet; mill, 60x150 feet; 10 presses; daily capacity 100 tons; estimated cost \$90,000. (Recently reported incorporated with \$50,000 capital stock.)

Tex., Jefferson.—Jefferson Cotton Oil & Fertilizer Co., F. I. Clark, president, awarded contract to J. D. Pridden & Co., Norman, Okla., to build plant for manufacturing cottonseed products, mixed feed and fertilizer; main mill 190x34 feet; one story; meal and cake room 34x74 feet; engine-room 27x40 feet; boiler-house 36x40 feet; seed and hull house

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

60x200 feet, with concrete floor; track scales of 100 tons capacity, with 50-foot platform and steel girders; wagon scales with platform 8x22 feet; equipment to include 200-horse-power boilers and heavy-duty Corliss engine; office building 16x30 feet. (Recently mentioned.)

DRAINAGE AND IRRIGATION

Ark., Newport.—Cow Lake Drainage District Commissioners will drain 24,000 acres farm lands in eastern part of Jackson county; 15 miles canals; approximate cost, \$100,000; bids not yet advertised; J. M. Gibson, commissioner, Grubb, Ark. (Recently noted.)

Fla., Detroit.—Miami Land & Development Co., Miami, Fla., awarded contract to A. B. Sanders to deepen Detroit Canal to six feet throughout its entire length of 9½ miles; present depth about 3 feet and width 30 feet; increase carry capacity from between 1,000,000 to 2,000,000 gallons water per hour to about 13,000,000 gallons. (Further facts lately noted.)

Fla., Tallahassee.—Legislature (House) passed bill providing for bonding Everglades for \$6,000,000 to drain and prepare lands for cultivation. Address Trustees Internal Improvement Fund, J. Stuart Lewis, secretary. (Details of resurveying contract recently noted.)

Ga., Albany.—City votes July 24 on \$13,000 bond issue to drain Government pond; H. A. Tarver, Mayor. (Recently mentioned.)

La., Shreveport.—Board of Commissioners, North Caddo Drainage District, 540 First National Bank Bldg., will improve drainage work through Alligator Slough and Dooley Bayou; further information available by addressing Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La.; bids received until June 10; recently noted. (See "Machinery Wanted.")

La., Walker.—Town will construct drainage canal; length two miles; width 8 to 12 feet; depth 3 to 5 feet; surveys made by Professor Candler, civil engineer. Address Town Clerk.

ELECTRIC PLANTS

Ala., Bay Minette.—Baldwin County Commissioners contemplate installing electric-light plant to furnish electricity to light jail, courthouse and grounds around buildings.

Ala., Scottsboro.—Scottsboro Light & Power Co. (recently noted as E. C. and John Snodgrass and others) will build electric-light plant and cotton gin; cost \$10,000; steam power; develop 100 horse-power. (See "Machinery Wanted.")

Ark., Waldron.—S. J. Hill and W. P. Harris contemplate constructing electric-light plant.

Fla., Newberry.—City awarded contract to J. B. McCrary Company, Atlanta, Ga., at \$26,500 to construct electric-light plant and water-works.

Fla., St. Andrews.—St. Andrews Ice & Power Co., J. H. Drummond, president, Box 142, has been granted franchise by city for electric lighting; will install electric-lighting plant. (See "Machinery Wanted.")

Fla., St. Petersburg.—City votes July 1 on purchase of electric-light plant; A. C. Phell, Mayor. (Recently mentioned.)

La., Bastrop.—City plans to enlarge electric-light plant and water-works; J. K. Skipworth, Mayor. (See "Water-Works.")

Md., Emmitsburg.—Emmitsburg Electric Co., capital stock \$7500, incorporated by J. Thomas Gelwick, W. Main St.; Albert M. Patterson, John D. Brawner and others to construct electric-light system.

Mo., Campbell.—Campbell Mill & Light Co., T. R. Hutchinson, president, contemplates constructing 11 miles of transmission line to include three towns.

Mo., Dexter.—Benjamin F. Elcholtz, owner local electric-light plant, contemplates installing 125-kilowatt three-phase 2300-volt generating unit (beltd) and complete switchboard equipment.

Mo., Gainesville.—Missouri Gas & Electric Co. contemplates constructing three miles of transmission lines; L. J. Beauregard, chief clerk.

Mo., Oregon.—City Light and Water Plant, Morton R. Martin, resident engineer and superintendent, invites bids on materials for electric-light plant; recently noted to install engine; engine supplied. (See "Machinery Wanted.")

Mo., Seneca.—H. H. Mace of Mountain Grove, Mo., contemplates installing electric-light plant at Seneca.

Mo., Washington.—Mississippi River Power Distributing Co. purchased property of

Tibbe Electric Co. and contemplates extension of transmission line from St. Louis to Washington, Union and Pacific, Mo.; will make various changes to local system, including pole-line transformers, lighting arresters, wire, etc.; H. D. Hildebrer, local manager.

N. C., Raleigh.—Wiley & Wilson, consulting engineers, Lynchburg, Va., have contract at about \$40,000 to install central heating, power and lighting plant for Capitol and other State buildings; central plant will heat Capitol, new State building and agricultural department.

N. C., Rocky Mount.—City voted \$135,000 bond issue for electric-light plant, water-works, paving and sewer extension; W. L. Parrott, Mayor. (Recently mentioned.)

Okla., Valliant.—City will vote on \$51,000 bond issue to construct electric-light plant and water-works; E. W. Gantt, consulting engineer, Sam Houston Life Bldg., Dallas, Texas.

S. C., Rock Hill.—Southern Power Co. (main office, Charlotte, N. C.) purchased several acres land and will build substation; engineers are making surveys from power line to site of new substation.

Tex., Dallas.—Northern Texas Traction Co. (Stone & Webster Engineering Corporation, manager, Boston, Mass.) will erect terminal building; basement to be used as substation for electrical motor generators for distributing power to street cars and for lighting and power purposes in business district in connection with underground system being installed. (See "Railway Stations, Sheds, etc.")

Tex., Hillsboro.—Southern Traction Co. will erect substation.

Tex., Waxahatchie.—Southern Traction Co. awarded contract to J. C. Jarrett of Waxahatchie to build substation; concrete and steel; cost \$3000.

Tex., Fort Worth.—Fort Worth Power & Light Co. will double capacity of powerhouse on Trinity River at Main St.; erect smokestack, duplicating present stack, 265 feet high and 20 feet in diameter at base; install eight boilers of 4000 horse-power; erect additions to buildings.

W. Va., Bluestone Junction (not a post-office).—Norfolk & Western Railway Co., L. E. Johnson, president, Roanoke, Va., is reported as having plans prepared to construct steam-power electric plant developing 24,000 kilowatts; machinery to include three steam turbine engines and generators, each with capacity of 8000 kilowatts; distribute electricity for operating Elkhorn branch of railway; Gibbs & Hill, engineers in charge, Pennsylvania Station, New York. Mr. Johnson wires Manufacturers Record: "Not prepared to give out detailed information." (Mr. Johnson also previously wired relative to this plant.)

FERTILIZER FACTORIES

Ala., Enterprise.—H. M. Sessions, Ozark, Ala., is interested in erecting fertilizer factory; 140x212 feet; ordinary construction; electric lighting; cost \$15,000; contract awarded to H. N. Hunters. (Mr. Sessions recently noted to organize company to establish plant.)

Ala., Seale.—Seale Fertilizer Co., capital stock \$25,000, incorporated by H. T. Benson and others.

Fla., Miami.—J. B. McLendon and A. H. and W. L. Keller purchased site with river frontage of 209 feet and will build guano and ice plants, each to cost \$100,000; guano factory building 100x160 feet; ice plant have daily capacity 100 tons; dredge channel along west line of property, increasing water frontage to 553 feet.

S. C., Cheraw.—Cheraw Oil & Fertilizer Co., H. M. Duvall, president, acquired fertilizer plant and will operate in connection with cottonseed-oil mill. (See "Cottonseed-oil Mills.")

Tex., Jefferson.—Jefferson Cotton Oil & Fertilizer Co. will build fertilizer plant; awarded construction contract to J. D. Pridgen & Co. of Norman, Okla. (See "Cottonseed-Oil Mills.")

FLOUR, FEED AND MEAL MILLS

Ky., Midway.—Cogar-Rumley Company awarded contract to erect mill and grain elevator. (See "Miscellaneous Enterprises.")

N. C., Norwood.—River View Milling Co., capital stock \$25,000, incorporated by Thos. A. Hathecock, Jesse B. Grove and others.

Va., Graham.—Eclipse Roller Mill Co. contemplates improving plant and installing additional machinery, increasing capacity.

FOUNDRY AND MACHINE PLANTS

Ala., Gadsden.—Stoves.—A. & J. Manufacturing Co. will erect 60-foot addition to main building of plant.

Md., Baltimore.—Gas-heating Appliance.—Rector Sanitary Gas Heating Co., capital stock \$250,000, incorporated by R. Boyd Cooling, Clarence J. Jacobs and Harry W. Davis, all of Wilmington, Del.

S. C., Florence.—Farm Implements.—Universal Plow Co. will erect two-story brick building to be equipped for manufacturing farm implements; estimated cost \$15,000; W. J. Wilkins, architect, Florence; company will install foundry equipment, including bulldozer, trip hammer, etc. (See "Machinery Wanted.")

S. C., Greenville.—Oil-mill Machinery, etc. American Machine & Manufacturing Co. of Greenville and of Charlotte, N. C., advises has decided to concentrate manufacturing at Greenville plant; contracting department to remain as heretofore.

Va., Lynchburg.—Cigarette Machinery.—United Cigarette Machine Co., registered office, London, Eng., will build erecting and paint shop; two stories; brick; 52½x67½ feet; structural steel; slate roof; cost \$7500; plans by company; construction by day labor; no building proposals; install traveling crane.

W. Va., Wheeling.—Iron.—J. E. Moss Iron Works, capital stock \$100,000, incorporated by J. E. Moss, E. A. Moss and W. E. McKibbin of Wheeling and N. M. Naugle of Canton, O.

GAS AND OIL ENTERPRISES

Ala., Mobile.—Tri-State Oil Co., capital stock \$100,000, organized with Parker J. Glass, president; William O. Daly, vice-president; W. A. Reed, secretary; C. L. Reed, manager.

Ark.-Tex., Texarkana.—Gasoline.—Purified Gasoline & Oil Co., capital stock \$60,000, organized with Sam Hardin president, J. W. Miller vice-president, J. O. Battle secretary-treasurer; will build plant to manufacture and purify gasoline with daily capacity 50,000 gallons.

Ga., Griffin.—Gas Plant.—City Council granted franchise to Frank L. Fuller of Concord, N. C., to build gas plant.

Ga., Lagrange.—Gas Plant.—Mayor and City Council receive bids until July 8 for apparatus, materials and labor necessary to install municipal water-gas plant recently noted; will require 4-foot water gas set; 10,000-gallon capacity oil tank; 8x10-foot purifiers; 5½-foot station meter; 8-inch governor; 40,000 cubic feet steel holder; necessary station buildings and connections, and 8½ miles 4-inch to 8-inch cast-iron gas mains; James Nisbet Hazlehurst, engineer, Candler Bldg., Atlanta, Ga. (See "Machinery Wanted.")

Ky., Ohio County.—Blue Grass Oil Co., capital stock \$75,000, incorporated by H. D. Rummell, J. W. Ramsey, J. E. Frazier, Conner Hal and E. W. Alexander, all of Charleston, W. Va.

Ky., Morgan County.—Falcum Oil Co., capital stock \$5000, incorporated by William Loeb of Huntington, W. Va.; B. F. Cayton of Cannel City, Ky.; Norman Loeb and Sadie R. Loeb of Philadelphia, Pa., and others.

La., Gillis.—Vinton Development Co., capital stock \$10,000, incorporated; Agnes B. Cross, president; Allen R. Cross, vice-president; James McK. Cross, secretary-treasurer.

La., Sabine Parish.—Fitz Oil Co. of Galveston, Tex., increased capital stock from \$20,000 to \$40,000 and plans further development of its properties in Sabine parish.

Md., Baltimore.—Gaspipe Lines.—G. P. Grimsley, Martinsburg, W. Va., is investigating for New York and Philadelphia capitalists relative to piping natural gas from West Virginia to Baltimore.

N. C., Rocky Mount.—Gas Plant.—City voted \$65,000 bond issue for gas works; W. L. Parrott, Mayor. (Recently mentioned.)

Okla., Collinsville.—Cyclone Oil & Gas Co., capital stock \$10,000, incorporated by W. W. McCrory, James D. Ward and others.

Okla., Marietta.—Katharine Howard Oil Co., capital stock \$25,000, incorporated by F. W. Skillern, H. E. Draughton, S. Westheimer, Jesse L. Jordan and A. E. Martin.

Okla., Muskogee.—Nate Realty & Oil Co., capital stock \$5000, incorporated by Walker R. Eaton, Homer E. Bell and Shirley E. Hare.

Okla., Muskogee.—Vann's Lake Oil & Gas Co., capital stock \$10,000, incorporated by H. H. Burkett, J. E. Forbes and C. T. Burns.

Okla., Okmulgee.—Bat Oil & Gas Co., capital stock \$3200, incorporated by Joe Burns, R. M. Pratt and W. R. Alexander.

Okla., Oklahoma City.—Charter Oil Co., capital stock \$17,200, incorporated by W. C. Brissay, J. F. Dingee, F. R. Wehmyer and W. R. Tate.

Okla., Tulsa.—Republic Oil Co., capital stock \$12,000, incorporated by P. J. White and H. F. Sinclair of Tulsa and E. A. Rider of Kansas City, Mo.

Okla., Tulsa.—Nickle Oil & Gas Co., capital stock \$100,000, incorporated by Rogers S. Sherman of Tulsa, A. W. Nickle, Robinson, Ill., and M. J. Beatty, Warren, Pa.

Okla., Tulsa.—Colonial Pipe Line Co., capital stock \$100,000, incorporated by J. S. Cosden, O. C. Cosden and E. R. Perry.

Okla., Tulsa.—Fearless Oil Co., capital stock \$5000, incorporated by Seth Ely, W. E. Parker and B. F. Rice.

Okla., Tulsa.—Castlebrook Oil Co., capital stock \$16,000, incorporated by Lee Daniel, M. J. Hopper and R. W. Kellough.

Tenn., Springfield.—Springfield Oil & Gas Co., capital stock \$500,000, incorporated by Neel Gleen, Hugo Dowlen and H. T. Stratton of Springfield, Charles Campbell, Birmingham, Ala., and Paul Moore, Nashville, Tenn.; secured leases on 700,000 acres land in Robertson and Logan counties.

Tex., Rockdale.—Rockdale Gas & Oil Co., capital stock \$6000, organized; will drill for oil on farm of C. A. Doss; machinery ordered.

Va., Norfolk.—Gas.—Virginian Railway & Power Co. will remodel gas plant and convert it from water-gas making plant to coal-gas plant; advises Manufacturers Record as follows: Proposed to let contracts some time during coming year for 1,000,000 cubic-feet-per-diem coal-gas plant with purifiers and other accessories; cost about \$300,000, with plans for further expenditure of \$200,000 within next three or four years; plans as to type not yet detailed; probably approved vertical retort system.

ICE AND COLD-STORAGE PLANTS

Ark., Little Rock.—R. D. Leas, proprietor R. D. Leas Fuel Co., contemplates building ice plant.

Fla., Miami.—J. B. McLendon, A. H. Keller and W. L. Keller contemplate, it is reported, erection of ice plant; daily capacity, 100 tons; estimated cost, \$100,000. (See "Fertilizer Plants.")

Fla., Miami.—South Atlantic, Gulf & Lake Okeechobee Fisheries Corporation, capital stock \$125,000, organized with W. M. Brown, president-general manager; Joseph B. Sisco, vice-president; Franklin C. Bush, secretary-treasurer; plans erecting ice plant in Miami and on Lake Okeechobee; each probably have daily capacity 25 tons; also build cold-storage plants and engage in fish industry.

Fla., St. Augustine.—Amos W. Corbett and associates contemplate installation of small ice plant. (See "Machinery Wanted.")

Va., Exmore.—Exmore Ice & Storage Co., capital stock \$50,000, incorporated; J. T. Hyslop, president, Belle Haven, Va.; J. W. Chandler, vice-president, Exmore; William E. Walker, secretary-treasurer, Willis Wharf, Va.

LAND DEVELOPMENTS

Ala., Montgomery.—Southern Cities Realty Co., capital stock \$100,000, incorporated; Henry C. Jones, president-treasurer; William L. Martin, vice-president; Silas D. Carter, secretary.

Ala., Warrior.—Warrior Land Co., capital stock \$12,500, incorporated; W. O. Mitchell, president; A. N. Minter, vice-president; G. D. Ettor, secretary; R. L. Mitchell, treasurer.

Fla., Hypoluxo.—Hypoluxo Development Co., Hugh F. Talbot, engineer, West Palm Beach, Fla., will develop 140 acres of land as townsite; surface work done by company; recently noted incorporated with \$30,000 capital stock. (See "Machinery Wanted.")

Fla., Miami.—H. Dale Miller, Wm. Harrison and Earl A. Fonda will incorporate company with \$50,000 capital stock to develop 90 acres land recently noted; land within limits of Greater Miami; subdivide and sell in lots; improvements to cost \$15,000; clear timber and pave streets; open proposals within 60 days; engineer, Col. C. H. Zoll, Miami.

Ga., Savannah.—W. C. Lawson of Savannah, Ga., purchased five tracts of land, consisting of 5200 acres, about 12 miles from Savannah; plans to improve and develop for trucking.

Ky., Monticello.—Standard Development Co., capital \$10,000, incorporated by Harry J. Matthews, Daniel O'Reardon, William L. Haworth and Robert S. Haslin.

La., Baton Rouge.—City voted \$10,000 bond issue for parks; B. Swartz, City Engineer. (See "Road and Street Work.")

La., Lake Charles.—Woodland Co., capital stock \$25,000, incorporated; Agnes B. Cross, president; Allen R. Cross, vice-president; James McK. Cross, secretary-treasurer.

La., New Orleans.—Cameron Parish Land & Development Co. will be name of company recently noted (as "Richlu Louisiana Land Co.") incorporated with \$50,000 capital stock; Gustaf Westfeldt, Jr., president; Frank W. Hart, secretary-treasurer; no development plans at present.

La., Plaquemines.—Spiller Sugar Co., T. D. Spiller, president, Bayou Goula, will develop 100 acres of sugar-cane property; manufacture cane syrup and molasses; recently noted incorporated with \$50,000 capital stock. (See "Miscellaneous Factories.")

Mo., Kansas City.—Malvern Land Co., capital \$10,000, incorporated by John Kelley, J. M. Kelley and A. B. Kelley.

Mo., Linn Creek.—Niangua Heights Development Co., capital stock \$50,000, incorporated by Sid C. Roach and R. G. Scott of Linn Creek and H. G. Everett of Des Moines, Iowa.

N. C., Charlotte.—Oak Hill Stock and Dairy Farm, capital stock \$50,000, incorporated by C. E. Mason, W. W. Phifer and others.

N. C., Reidsville.—Reidsville Development Co., capital stock \$100,000, incorporated by W. G. Jerome, W. M. Hendren and W. C. Northup, all of Winston-Salem, N. C.

N. C., Henderson.—Vance Realty Co., capital stock \$25,000, incorporated by John D. Cooper, S. S. Parham, C. W. French and W. A. Huat.

N. C., Rocky Mount.—Eastern Development Co., capital stock \$30,000, incorporated by J. P. Bunn, M. R. Braswell and W. S. Wilkinson.

N. C., Shelby.—John A. Darwin of Athens, Ga., and W. Gardner Osgoodby of Morris county, New Jersey, contemplate, it is reported, improvements at Cleveland Springs in connection with clubhouse, including park, driveways, artificial lake, tennis courts, etc. (See "Miscellaneous Structures.")

Tenn., Knoxville.—Kington Pike Land Co. (recently noted incorporated, capital stock \$25,000) will develop 90 acres residence district two miles west of Knoxville; N. E. Logan, manager.

Tenn., Richard City.—Tennessee River Realty Co., capital stock \$150,000, incorporated by Charles C. Moore of Chattanooga, Tenn., and others; plans development of 5000 acres in Marion county. (See "Coal Mines and Coke Ovens.")

Tex., Houston.—Syndicate Land & Development Co., capital stock \$48,000, incorporated by H. B. Williamson, John A. Hulien and J. F. Wolters.

Tex., Seguin.—Hamilton Townsite Co., Thornton Hamilton, president, will develop 6000 acres of land in Live Oak county as townsite. (Recently noted incorporated with \$30,000 capital stock.)

Va., Norfolk.—Richard B. Cooke of Willcox, Cooke & Willcox purchased lots along water-front and will develop for summer colony home sites.

LUMBER MANUFACTURING

Ala., Birmingham.—Jenkins Lumber Co., capital stock \$50,000, incorporated; R. W. Jenkins, president; Guy S. Jones, vice-president; L. L. Matthews, secretary-treasurer.

Ala., Benson.—Wm. E. Benson, president of Dixie Railway Co., contemplates establishment of sawmill plant with daily capacity of 50,000 feet of lumber. (See "Machinery Wanted.")

Ala., Heflin.—Jackson & Pounds will build sawmill and develop timber land owned by Jackson Bros. Lumber Co. of Tallapoosa, Ga. (See Ga., Tallapoosa.)

Ala., Tuscaloosa County.—C. A. O'Neal of Andalusia, Ala., will build mill with probable daily capacity of 100,000 feet; develop 23,000 acres timber land in Tuscaloosa county recently reported purchased.

Ark., Reader (not a postoffice).—Valley Lumber Co. of Camden, Ark. (recently reported incorporated with \$50,000 capital stock by W. W. Brown, J. T. Sifford and others), purchased 8000 acres timber land near Reader; will build mill to be under management of L. Sparkman.

Ark., Junction City.—Lewis-Law Lumber Co., capital stock \$10,000, incorporated by J. F. Lewis, N. M. Law and F. Volz.

Ark., Reydel.—P. O. at Langford.—Big Bayou Lumber Co., capital stock \$10,000, incorporated by Henry Kruse, Al Shoults, R. E. Drake and others.

La., Campitl.—Whaley Lumber Co., Couchatta, La., purchased timber land and will build sawmill.

La., Gonzales.—Bayou Narcisse Lumber Co., capital stock \$5000, incorporated; Adan Sevario, president; W. P. Sevario, vice-president; Achille I. Picard, secretary.

Ga., Tallapoosa.—Jackson Bros. Lumber Co. will build planing mill, lumber finishing plant and reinforced concrete drykilns; purchase rough timber, rework and finish; daily capacity 25,000 feet finished lumber; Jackson & Pounds will build sawmill near Heflin, Ala., and develop timber land owned by Jackson Bros.; timber will be shipped to finishing mill.

Miss., Bay St. Louis.—Edwards Lumber & Manufacturing Co., capital stock \$30,000, incorporated by John K. Edwards, George H. Edwards, Edwin W. Edwards and others.

Miss., Clyde.—Lamar Lumber Co., V. M. Scanlan, Hattiesburg, Miss., president, awarded contract to Standard Construction Co., Meridian, Miss., for erection of 65x106-foot fireproof building costing \$8000; drykiln system furnished by Grand Rapids (Mich.) Veneer Works; cost \$6000; manufacture yellow-pine lumber.

Miss., Columbus.—Balle Manufacturing Co. will install sawmill with daily capacity 15,000 feet; equipment ordered.

Mo., Kansas City.—Wilson Lumber Co., capital \$30,000, incorporated by W. F. Ingham, B. H. Lundig and J. S. Kirkpatrick.

Mo., St. Louis.—Realization Land & Lumber Co., National Bank of Commerce Bldg., has organized with Frank E. Rinehart, president and treasurer; C. E. Hayden, vice-president; George H. Cottrell, secretary; advises: "Mill leases only." (Recently noted incorporated with \$40,000 capital stock.)

N. C., Elizabeth City.—W. H. Megee Lumber Co., capital stock \$25,000, incorporated by Roscoe W. Turner, W. H. Megee and others.

Okla., Okmulgee.—Brown Lumber Co., capital stock \$20,000, incorporated by Allen Brown and W. E. Panoast of Okmulgee and F. E. Wear of Kansas City, Mo.

S. C., Georgetown.—Atlantic Coast Lumber Co. is having plans prepared for mill to replace burned plant; building of reinforced concrete; daily capacity 500,000 feet. (Recently mentioned.)

Tenn., Bristol.—R. E. Wood Lumber Co., 609-612 Continental Trust Bldg., Baltimore, Md., will erect 6-foot band-saw mill; develop timber land.

Tenn., Harriman.—W. A. Rockwell and B. F. Hamilton will build band-saw mill; daily capacity, 20,000 feet lumber.

W. Va., Charleston.—Dana-Guthrie Lumber Co., capital stock \$50,000, incorporated by H. A. Lighter, A. S. Guthrie, R. K. Ford and others.

W. Va., Grant County.—W. C. White Lumber Co., Cumberland, Md., purchased and will develop 500 acres timber land.

METAL-WORKING PLANTS

Ala., Mobile.—Door Checks.—National Door Check Co. (recently noted organized, capital stock \$20,000) advises has effected temporary organization, with W. T. McGowan, president and general manager, to produce door and screen door checks; now having 1000 checks manufactured daily by contract; probably continue to place contracts for manufacture.

Okla., Dustin.—Rail Joints.—O. O. Rosson contemplates manufacture of rail joint. (See "Machinery Wanted.")

Tex., Weatherford.—Clothespins.—Peerless Clothespin Co., capital stock \$25,000, incorporated to manufacture wire clothespins; capacity, 500 gross daily; occupy rented building; C. C. Littleton, president; J. A. Buckley, vice-president; E. A. Frenz, secretary-treasurer.

MINING

Ark., Eureka Springs.—Phosphate.—L. J. Goodman has organized company to develop phosphate deposits.

Ark., Mountain Home.—Lead.—W. Creslen of Oklahoma City, Okla., and associates will develop lead mines on White River.

Ark., Scranton.—Ballast.—George Helme of Scranton and Fred J. Gould of St. Louis, Mo., organized company, it is reported, with \$100,000 capital stock to develop natural ballast deposits covering about 1000 acres.

Ark., Yellville.—Silver.—Silver Hollow Lending Co., E. Zimmerman, Harrison, Ark. (recently noted as having leased property and acquired mill), contemplates improvements; plans not determined; will develop 80 acres; daily output 7 to 10 tons of ore.

Ky., Anchor.—R. C. Teway Mining Co., capital stock \$10,000, incorporated by R. C. Teway, E. B. Teway and W. F. Burnwinkle. Mo., Graniteville.—Granite.—A. J. Sheahan Granite Co., capital \$20,000, incorporated by Andrew J. Sheahan, J. L. Baldwin and Louis Glasser.

Mo., St. Louis.—Smelting, Ore Reduction, etc.—Last Hope Mining & Milling Co., capital stock \$50,000, incorporated by D. C. Todd and C. E. Blair of St. Louis and O. P. Reinhardt of St. Charles, Mo.

Okla., Glencoe.—Copper.—T. M. Davis will develop copper mines.

Tex., Dallas.—Siglo Leasing Co., capital stock \$8000, incorporated by A. D. R. Collier, W. E. Campbell and W. A. Nason.

Va., Hiwassee.—Hiwassee Chemical & Color Co. (main office, 106 Devonshire St., Boston, Mass.) will install plant consisting of revolving dryers and machinery for washing, treating, etc., in connection with development of mining property.

Va., Stanley.—Ochre, etc.—Virginia Ochre Corporation, H. H. Vanderveene, president, main office Grand Rapids, Mich., has purchased equipment, excepting engine, for building recently noted under Va., Luray; output one car daily.

MISCELLANEOUS CONSTRUCTION

Fla., Palmetto.—City awarded contract to Florida Sand & Shell Co. of Tampa, Fla., for 20,000 yards of filling at Palmetto; city will construct bulkhead along portion of river front and will fill in rear.

Ky., Hickman.—Levee.—City has arranged to secure estimates and cost of constructing levee to protect city from overflow. Address The Mayor.

La., Lake Charles.—Canal.—Major Ed. H. Schulz, United States Engineer Office, 325 Custom-house, New Orleans, La., will forward to Washington for approval bid of Bowers Southern Dredging Co. of Galveston, Tex., for dredging inland waterways canal between Calcasieu and Sabine rivers; 2 1/2 miles long; 40 feet wide at bottom and 5 feet deep at mean tide; 1,500,000 cubic yards of excavation; cost not to exceed \$99,000. (Call for bids lately noted.)

La., New Orleans.—Underground Conduit, etc.—Sewerage and Water Board, 508 City Hall Annex, will construct following extensions: Contract No. 53-D—Underground conduit from sewerage station A to Mississippi River; contract 55-D—Extension to drainage pumping station No. 1, including all foundations, suction and discharge basins; contract 56-D—Sluice gates for drainage pumping station No. 1; contract 57-D—Traveling crane for drainage pumping station No. 1; bids received until July 28; F. S. Shields, secretary. (See "Machinery Wanted.")

La., New Orleans.—Earth Work.—Mississippi River Commission, Fourth District, C. O. Sherrill, Captain, Engineers, will construct about 615,000 cubic yards earth work in Lower Tensas Levee District; bids received until June 9 at United States Engineer Office, Metropolitan Bank Bldg. (See "Machinery Wanted.")

Miss., Vicksburg.—Levee.—Third Mississippi Levee District, J. A. Woodruff, Major, Engineers, is asking bids, to be received until June 14, for recently-noted closing of Skipwith Crevasse; about 580,000 cubic yards earthwork. (See "Machinery Wanted.")

Tex., Galveston.—Lock Valves Construction. Government will construct lock valves and operating gear; bids received until June 27; Lieutenant Riche, Lieutenant-Colonel, Corps of Engineers. (See "Machinery Wanted.")

MISCELLANEOUS ENTERPRISES

D. C., Washington.—Publishing.—Munsey Publishing Co. is having plans prepared by McKim, Mead & White of New York for building at 1331-1335 Pennsylvania Ave.; six stories; fireproof; marble or stone front; cost \$200,000.

Fla., Jacksonville.—Transportation.—Howard Transportation Co., capital stock \$30,000, incorporated; A. W. Corbett, president; J. H. Howard and G. G. Gleason, vice-president; A. M. Evans, treasurer; A. M. Groover, secretary.

Ga., Augusta.—Abattoir.—Independent Butchers' Abattoir incorporated with \$20,000 capital stock; leased plant formerly known as Rosenthal Native Dressed Meat Co. and will operate abattoir; T. S. Durst, president; I. Lucky, vice-president; L. Scharff, secretary; B. J. Anderson, treasurer.

Ky., Louisville.—Contracting.—Dugan Engineering Co. organized with C. M. Dugan, Jr., president; will contract to reconstruct

cement, quarry and power plants; office, Equitable Bldg.

Ky., Louisville.—Publishing.—Louisville News Co., capital stock \$10,000, incorporated by Roy G. Stevens and Josephine E. Rose of Louisville and Francis B. Sanford of Warwick, N. Y.

Ky., Midway.—Grain Elevator.—Cogar-Bumley Company awarded contract to R. W. Lacerfeld, Midway, to erect grain elevator and mill; 40x80 feet; two stories; mill construction; metal roof; cost \$3000; plans by L. R. Veach & Co., Louisville, Ky. (Recently noted.)

La., Baton Rouge.—Abattoir.—City voted \$12,000 bond issue to build abattoir recently noted; B. Swartz, City Engineer. (See "Road and Street Work.")

Mo., St. Joseph.—Laundry.—Parker-Faulhaber Laundry Co., capital \$20,000, incorporated by Ross Parker, L. H. Schultz and A. F. Faulhaber.

Mo., St. Louis.—Drayage.—H. A. Laeking Tanning Co., capital stock \$25,000, incorporated by Herman A. Laeking, Frank C. Hogan and Robert G. Laeking.

N. C., Southport.—Laundry.—Cape Fear Laundry & Manufacturing Co., capital stock \$25,000, incorporated by J. S. Craig, R. B. Morse and E. P. Crockett.

S. C., Greenville.—Publishing.—Greenville News Publishing Co. awarded contract to Flske-Carter Construction Co. of Greenville to erect printing and office building; fireproof; reinforced concrete; frontage of 51 feet and two depths of 74 and 100 feet, respectively; three stories and basement; front of tapestry brick, granite and terracotta; four columns in front extending from sidewalk to top of building, to be of tapestry brick with terra-cotta mold inlaid on face of each; lobby and vestibule of tile; electric elevator; steam heating plant; press, stereotyping, boiler and storage rooms, etc., in basement; hydraulic elevator, or paper lift, from floor of paper-storage room to sidewalk above; upper half of pressroom to be above level of sidewalk and have plate-glass front; plans by J. E. Sirmine of Greenville. (Previously mentioned.)

S. C., Lancaster.—Builders' Supplies.—Builders' Supply Co. purchased buildings and machinery formerly owned by Moore Lumber & Manufacturing Co. and will continue plant; W. T. Gregory, president; A. J. Gregory, vice-president; W. F. Harper, secretary-treasurer. Recently noted incorporated, under "Miscellaneous Enterprises," with \$10,000 capital stock.)

Tenn., McKenzie.—Laundry.—McKenzie Steam Laundry, capital stock \$3000, incorporated by John Coston, W. G. Coston, R. B. Moore, H. A. Jacobs and C. M. Wrinkle.

Tex., Yoakum.—Laundry.—H. G. Carroll and F. S. Galle purchased Yoakum Steam Laundry and will install \$5000 worth of additional machinery.

Tex., Wharton.—Laundry.—Fred Witta will build steam laundry.

W. Va., Huntington.—City voted \$20,000 bond issue for incinerator; Floyd S. Chapman, Mayor. (See "Sewer Construction.")

MISCELLANEOUS FACTORIES

Ala., Mobile.—Bakery.—Gordon Smith will build bakery; enameled brick; 136,000 square feet floor space; roof garden; shower baths; nine ovens; daily capacity, 30,000 loaves bread; plans by Stone Bros. of Mobile; contract awarded to A. W. Brown of Mobile. (Recently mentioned.)

Ark., Camden.—Door and Window Screens, etc.—Rockwell Manufacturing Co. (recently noted incorporated, \$50,000 capital stock), will purchase plant of Valley Lumber Co.; has bought new machinery; manufacture screen doors, window screens and K. D. frames; John F. Judd, president; W. B. Ayars, vice-president; B. C. Rockwell, secretary-treasurer and manager.

Ala., Fairfield.—Sulphuric Acid.—Steel Cities Chemical Co., Birmingham, Ala., is considering expenditure of \$100,000 to enlarge sulphuric-acid plant previously built at cost of \$300,000.

Fla., Pensacola.—Wood Pulp.—Georgia Wood Pulp Co. of Atlanta, Ga., and New York, is arranging for establishment of wood pulp factory. (Recently mentioned.)

Fla., West Palm Beach.—Syrup.—Florida East Coast Pineapple Syrup Co. will establish plant to manufacture pineapple syrup, vinegar and brandy; erect 100x200-foot building; cost \$5000; bids opened in 90 days; install syrup evaporators; E. C. Murry, president; F. Spencer, manager. (See "Machinery Wanted.")

Ga., Atlanta.—Ice Cream.—Jessup & Antrim

Ice-Cream Co. leased building to be erected on E. Ellis St.; two stories and basement; 40x100 feet; concrete; Gude & Co. of Atlanta, contractors.

Ga., Hawkinsville—Overalls.—Pulaski Overalls Co., Box 534, will establish plant for manufacturing overalls.

Ga., Rome—Trunks.—Rome Trunk Co. incorporated by David A. Rector, John A. Wilkins and Wilburn Roper.

Ky., Louisville—Buttons.—J. V. Pilcher Manufacturing Co. will erect addition; 52x40 feet; will soon let contract.

Ky., Louisville—Artificial Limbs.—Blevens Artificial Limb Manufacturing Co., capital stock \$10,000, incorporated by Emmet Blevens, W. W. Klein and J. O. Breithell.

Ky., Paducah—Medicine.—Lark Medicine Co., capital stock \$3,000, incorporated by H. R. Lindsey, W. P. Paxton and Peter Acker.

La., Lake Charles—Naval Stores.—Pineland Naval Stores Co., contemplates increasing capital stock and enlarging plant. (Recently erroneously noted under La., Pineland.)

La., New Orleans—Rice Mill.—Panama Rice Milling Co., capital stock \$20,000, incorporated by John S. Talmage, William T. Hall, John H. Barrow and others.

La., Plaquemine—Syrup.—Spiller Sugar Co., T. D. Spiller, president, Bayou Goula, La., will operate plant to manufacture cane syrup; improvements include cane mill, evaporating pans and clarifiers; cost about \$60,000; contemplated capacity by November next 3000 barrels of cane syrup and molasses. (Recently noted incorporated with \$50,000 capital stock.)

La., Shreveport—Glass Bottles.—B-R-C Bottle Co., capital stock \$25,000, incorporated by U. S. Bartsness, president; John A. Ridgeway, vice-president; C. F. Long, secretary-treasurer.

Md., Baltimore—Toys.—American Toy Horse & Wagon Manufacturing Co., capital stock \$50,000, incorporated by James E. O'Donovan (of Muldoon & O'Donovan, 117 S. Hanover St.) and James A. Fulton.

Mo., St. Louis—Cigars.—Rauh-Millius Cigar Co. incorporated by E. E. Rauh, Gus A. Millius and James Macklin; capital stock \$4,000.

N. C., China Grove—Brooms.—Watkins Bros. will erect broom factory.

Okla., Enid—Paint.—Manning Paint Co., capital stock \$5,000, incorporated by John P. Cook, W. H. Manning, E. N. McKee, H. H. Houston and H. A. Dillon.

Tenn., Nashville—Chemicals.—United Chemical Co., capital stock \$250,000, incorporated by John P. Craig, F. D. Craig, W. M. Joel, C. D. Quick and Howard Hull.

Tenn., Nashville—Shoe Polish, etc.—Tenna Specialty Co. (A. F. Raymer and others) has plans for plant; two-story factory building, 30x75 feet; will manufacture shoe polish, talcum powder and washing blue. (Recently reported organized with \$10,000 capital stock.)

Tex., Austin—Stone.—Royal Reed, Chicago, Ill., contemplates establishing stone-working plant to manufacture granite for buildings and monuments; capital stock \$250,000.

Tex., Dallas—Clothing.—Dundee Woolen Mills, David C. Greengard, president, will erect loft building; six stories; 75x125 feet; fireproof. (Previously mentioned.)

Tex., Dallas—Assembling Plant.—Ford Motor Co. (main office, Detroit, Mich.) purchased site on which to build assembling plant; plans to erect building; five stories; reinforced concrete and brick; 40x125 feet; E. T. Backus, local representative.

Tex., Houston—Telephones, etc.—Oxford Telephone Manufacturing Co., C. E. Oxford, president and manager, present address Fayetteville, Ark., advises may locate recently-noted plant at Houston; needs additional machinery. (See "Machinery Wanted.")

Va., Portsmouth—Stock Remedy.—Anti-Cholera Stock Remedy Corporation, C. D. Gilliam, president, Norfolk, Va. (recently noted incorporated, \$28,000 capital stock), will build additional story to two-story 45x90-foot brick structure; install electric motors, sifters and mixers; manufacture stock and poultry remedies. (See "Machinery Wanted.")

Va., Richmond—Cribbs.—New Era Crib Co., capital stock \$50,000, incorporated; H. B. Stokes, president; B. H. Edwards, vice-president; W. D. Barrington, secretary.

Va., Richmond—Roofing.—General Roofing Manufacturing Co., capital stock \$50,000, incorporated; George M. Brown, president, St. Louis, Mo.; S. E. Allison, vice-president, York, Pa.; William E. Rhine, secretary, York, Pa.

Va., Richmond—G. G. Worsham will erect factory building; one and a half stories; brick, concrete and frame; 196x130 feet; standard five-ply roofing; cost \$30,000; E. H. Armentrout, contractor.

W. Va., Morgantown—Glass.—Athens Glass Co., capital stock \$100,000, incorporated by J. M. Wood, E. B. Stone, Howard A. Kaufeld, George M. John and E. M. Grant.

MOTORS AND GARAGES

Ark., Texarkana—Automobile Trucks.—Southern Motor Co., capital stock \$10,000, incorporated; will build plant to manufacture automobile trucks; Dr. K. M. Kelly, president; C. J. Neef, secretary-manager; Andrew Bowden, treasurer.

Fla., Tampa—Garage.—James Bros., 905 Florida Ave., will build garage; one story; 105x35 feet; brick; cost \$25,000; plans by Fred J. James.

Fla., Tampa—Garage.—West Coast Auto Co. will build garage; 105x95 feet; one story; brick; plans by Fred J. James.

Ky., Maysville—Automobiles.—Brown Auto Co., capital \$1500, incorporated by Mike Brown, W. B. Tully and B. M. King.

Md., Baltimore—Garage.—George H. Martin of G. H. Martin & Co., 1421 Maryland Ave., will build garage; site will comprise three lots, each 20x100 feet.

Mo., St. Louis—Motor Trucks.—Mogul Motor Truck Co., George C. Griffin, president, leased one-story factory building, 100x165 feet, and will equip for manufacturing motor trucks.

N. C., Durham—Garage, etc.—C. P. and C. C. Howerton will erect three-story building to be equipped as manufacturing plant of Durham Vehicle & Harness Co.; first floor to be equipped as garage. (See "Woodworking Plants.")

S. C., Darlington—Garage, etc.—J. Monroe Spears awarded contract for erection of recently-noted building; garage and salesroom; fireproof; cost \$10,000.

Tenn., Knoxville—Garage.—P. J. Briscoe will build garage; 78x125 feet; one story; cost \$9,000; plans by Aymar Embury, 132 Madison Ave., New York; contract awarded to J. M. Dunn & Son of Knoxville.

Tex., Denton—Garage.—Fox Bros. will build garage; 76x100 feet; brick; cost \$3,500; Whitlock & Co., contractors.

Tex., Yoakum—Garage.—Yoakum Auto Co. will erect salesroom and garage; 50x100 feet; brick; plate-glass windows; cement floor.

Va., Lynchburg—Garage.—W. C. Ivey will build brick garage; cost \$3,500.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Md., Baltimore—Western Maryland Railway, H. L. Pratt, chief engineer, Hillen Station, Baltimore, awarded contract to Cowan Building Co., 106 W. Madison St., Baltimore, to build roundhouse, 32x36 feet, in rear of Hillen Station. (Recently mentioned.)

Md., Baltimore—Pennsylvania Railroad Co., A. C. Shand, chief engineer, Philadelphia, Pa., submitted proposition to Mayor James H. Preston and city officials for Northern Central Railway terminal improvements involving expenditure of \$10,000,000; to include elimination of passenger service at Calvert Station and providing warehouses, sheds, etc., for handling freight exclusively, or erection of combination freight and passenger station in vicinity of Bath St., with adequate warehouses, etc.; plan also includes enlarged freight sheds and carload delivery tracks, construction of bridge 50 feet wide on south side of Madison St. from Calvert St. to Constitution St., widening Bath St. from 40 to 70 feet between Calvert St. and Guilford Ave., and later improving Bayview and Canton terminals, etc. (Previously noted.)

Okla., Muskogee.—Missouri, Oklahoma & Gulf Railway, J. W. Dawson, engineer maintenance of way, awarded contract to Rooney & Culp of Muskogee for foundation of main shop buildings; main building for machine shops, blacksmith, boiler and locomotive shop will be 148x200 feet; other buildings will include car repair shed, 46x180 feet; carpenter shop, 32x38 feet; store-room, 80x52 feet; all of brick and steel construction; estimated cost \$200,000; also awarded contract to furnish steel for structural work. (Previously noted.)

Tex., Greenville.—Missouri, Kansas & Texas Railway, A. M. Acheson, chief engineer, Dallas, Tex., will, it is reported, enlarge shops.

ROAD AND STREET WORK

Ala., Anniston.—Calhoun county will grade, drain and surface with macadam about 1½

miles of Piedmont and Jacksonville Rd.; expenditure \$4000; W. S. Keller, State Highway Engineer, Montgomery, Ala.; bids received until July 1 (extended date); recently noted. (See "Machinery Wanted.")

Ala., Columbiana.—Shelby County Board of Revenue will grade and drain part of Alabama and Saginaw road; expenditure \$4000; bids received at courthouse until July 3; W. S. Keller, State Highway Engineer, Montgomery, Ala. (See "Machinery Wanted.")

Ala., Gadsden.—City (recently noted to pave Walnut St.) contemplates chert and gravel construction; tarvia concrete pavement on Walnut St.; \$15,000 available and \$25,000 of bonds; Chas. L. Marsh, City Engineer.

Ala., Mobile.—Mobile County Board of Revenue and Road Commissioners authorized issuance of \$150,000 additional bonds for road improvements and maintenance of roads completed and contracted for.

Ala., Selma.—City will lay about 16,000 yards Dolarway paving with necessary storm sewers, inlets, manholes and concrete curbing; bids received until June 12; Julien Smith, City Engineer. (See "Machinery Wanted.")

Ark., Argenta.—Improvement Districts Nos. 15 and 16 will pave with concrete 53,000 square yards and 53,500 square yards, respectively; also lay one mile of vitrified pipe storm sewer in each district; bids received until June 2; Lund & Hill, engineers; A. B. Gerlach, City Clerk. (See "Machinery Wanted.")

Ark., Jonesboro.—Street Improvement District No. 10 will construct 10,000 square yards brick paving, 5000 linear feet curb and gutter and 300 feet stone header; C. Vogt, engineer in charge.

D. C., Washington.—District of Columbia will lay cement sidewalks in district; bids received until June 12 at office of secretary Board of Commissioners, 509 District Bldg. (See "Machinery Wanted.")

Fla., Crescent City.—City will shell driveway 8 feet wide and 7 inches deep on Oakwood and Citron Aves., and Walnut St., about 1540 running yards; clearing and grading done by town; bids received until June 18; Paul C. Smith, Clerk. (See "Machinery Wanted.")

Fla., Jacksonville.—City Council ordered following paving expenditures: \$17,700 for Adams St.; \$17,550 for Adams St.; \$21,372 for Main St.; \$12,250 for Riverside Ave.; \$16,906 for Beaver St.; \$5308 for Jackson St.; \$7000 for Park St.; committee on public works in charge; William S. Jordan, Mayor.

Fla., Sanford.—City awarded contract to C. H. Hand to lay brick paving; material purchased. Address The Mayor.

Fla., Sarasota.—City will construct four miles of paving and drainage; W. S. Bullock, engineer in charge; \$15,000 bond issue available. (Recently noted.)

Ga., Albany.—City votes July 24 on \$12,500 bond issue for street paving; H. A. Tarver, Mayor. (Recently mentioned.)

Ga., Tybee.—Chatham County Commissioners, Savannah, Ga., will extend paved road on Tybee Island from railroad to Inlet Station.

La., Abbeville.—City Council adopted plans and specifications for several miles concrete and cement street crossings; will soon invite bids. Address The Mayor.

La., Baton Rouge.—City voted \$225,000 bond issue, of which \$90,000 will be expended for paved or graveled streets, \$12,000 for abattoir, \$38,000 for sewer extension, \$20,000 for drainage, \$10,000 for parks, \$20,000 for negro school, \$10,000 for charity hospital and \$35,000 for purchase of penitentiary site; B. Swartz, City Engineer. (Recently noted.)

La., Baton Rouge.—Highway Department, W. E. Atkinson, State Highway Engineer, New Orleans, La., recommends acceptance of bid of George W. Garig, Baton Rouge, for \$52,120 for construction of 14 miles of gravel road; has \$53,000 available. (Call for bids recently noted.)

La., Gretna.—Road districts Nos. 1 and 2 of Jefferson parish contemplate issuing \$200,000 of bonds for road improvements. Address County Commissioners.

La., Lafayette.—City voted \$75,000 bond issue for road construction. Address The Mayor. (Recently mentioned.)

La., Natchitoches.—Natchitoches parish voted tax for road construction. Address Police Jury.

La., Martinsville.—City will construct cement sidewalks and curbs; bids received at any time before June 27; Albert Bienville, Mayor. (See "Machinery Wanted.")

Md., Baltimore.—City awarded contract to P. Reddington & Sons, 321 St. Paul St., Baltimore, at \$85,959.50 for vitrified brick paving, contract No. 53. (Call for bids lately noted.)

Md., Baltimore.—State Roads Commission, William L. Marcy, secretary, 534 N. Howard St., receives bids until June 12 for building seven sections of State highway in various counties, aggregating 16.58 miles, and one bridge; bids upon blank form in book of specifications; latter furnished upon application and payment of \$2 for each section; blueprints of each section furnished at 25 cents for each half mile. (See "Machinery Wanted.")

Md., Cumberland.—City will grade and pave 2150 feet on Franklin, Schley, Magruder, Wallace and S. Lee Sts.; construct 3900 feet concrete curb on Oldtown Rd. and Win-cow St. and 2000 feet curbing and foundation for asphalt on Thomas St.; bids received until June 4; James P. Gaffney, City Engineer. (See "Machinery Wanted.")

Md., Cumberland.—City will macadam Patterson Ave. from Locust to Allegany St.; also grade, macadamize, sewer, etc., portions of Beall and Allegany Sts. Address The Mayor.

Miss., Fayette.—First District of Jefferson county will vote on \$50,000 bond issue for road construction. Address County Commissioners.

Miss., Seminary.—District No. 1 of Covington county will construct roads, including highway from Sanford to near Kola; Highway Commissioners will invite bids.

Miss., Jackson.—City votes June 7 on \$60,000 bond issue for street improvements. Address The Mayor.

Mo., St. Louis.—Board of Public Improvements awarded contract to Grant Construction Co. of St. Louis at \$37,000 to pave Delmar Ave. from Vassar Ave. to Hanley Rd.; Telford paving with concrete top dressing.

N. C., Mocksville.—Davie county voted \$175,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

N. C., Rocky Mount.—City voted \$135,000 bond issue for paving, sewer, extension, water-works and electric-light plant; W. L. Parrott, Mayor. (Recently mentioned.)

N. C., Wilmington.—New Hanover county voted \$100,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

S. C., Lancaster.—City contemplates voting on \$13,000 bond issue to improve streets. Address The Mayor.

Okla., Durant.—City awarded contract to Levy & Levy, Muskogee, Okla., for construction of proposed 12 blocks asphaltic concrete paving; Bermudez or Trinidad asphalt; cost about \$42,000; W. P. Danford, City Engineer.

Okla., Marietta.—City is asking bids, received until June 11, for construction of about 26,000 yards asphaltic concrete pavement; Benham Engineering Co., 456 American National Bank Bldg., Oklahoma City, Okla., consulting and supervising engineers. Recently noted. (See "Machinery Wanted.")

Tenn., Charlotte.—W. H. Neblette, secretary Highway Commission, Dickson county, states Commission will proceed to contract for road construction after selling \$250,000 of bonds previously noted voted.

Tenn., Huntingdon.—City votes July 2 on \$5000 bond issue for street and other improvements. Address The Mayor.

Tenn., Knoxville.—City Commissioners awarded contract to Murray Construction Co. of Knoxville at \$18,432.50 to pave with asphalt Forest Ave. from 4th to 9th St., and at \$945.44 to pave with asphalt Third Ave. from Caswell to Wells; Forest Ave. contract calls for about 6650 square yards paving, 3300 cubic yards excavation, 4400 linear feet concrete curb, 800 linear feet storm sewer; Third Ave. contract for 3911 square yards, 1467 cubic yards excavation, 1594 cubic yards concrete curb, 300 linear feet storm sewer; contract for paving White Ave. not awarded; D. G. Leahy, Recorder. (Call for bids lately noted.)

Tex., Bartlett.—District No. 2 of Bell county will vote on \$50,000 of bonds for road construction. Address District Commissioners.

Tex., Bastrop.—Citizens' Committee of Smithville road district of Bastrop county, E. H. Eagleston, chairman, awarded contract to Ray McDonald of Austin, Tex., at about \$65,000 to construct about 40 miles graveled roads, including bridges and culverts; \$100,000 bond issue voted. (Call for bids lately noted.)

Tex., Beaumont.—Jefferson county, R. W. Wilson, county judge, will construct 50

miles oyster shell and Uvalde rock asphalt road; \$200,000 available; bids not yet called; F. R. Blanchette, engineer, Box 185. (See "Machinery Wanted.")

Tex., Bryan.—City, W. W. Harris, Mayor, will construct recently-noted street paving; 25,000 square yards; \$50,000 available; bids opened about June 15; engineers, Carson & Adams, Bryan. (See "Machinery Wanted.")

Tex., Clarksville.—Clarksville Precinct of Red River county will vote on \$300,000 bond issue for road construction. Address County Commissioners.

Tex., Corsicana.—Supervisors Navarro County Road District No. 1 engaged Fred A. Jones Company of Houston, Tex., as engineer in charge of constructing 100 miles macadam roads and concrete; amount available \$400,000. (Recently mentioned.)

Tex., Corpus Christi.—Nueces county will vote first week in July on \$500,000 bond issue to construct and improve roads. Address County Commissioners. (Previously noted.)

Tex., Dallas.—Dallas County Commissioners instructed J. F. Witt, county engineer, to prepare and submit estimates on cost of paving viaduct with creosoted wooden blocks; length 6300 feet, including 500 feet of Oak Cliff approach; width 41 feet; preliminary estimated cost \$60,000.

Tex., Lindale.—Lindale District of Smith county will construct 150 miles sand-clay and gravel road; \$75,000 available; engineer not employed; W. S. Hicks, County Commissioner. (Bond issue of \$75,000 recently noted voted.)

Tex., Mart.—City votes June 28 on bond issue to improve streets. Address City Commissioners.

Tex., Moscow.—Moscow Precinct of Polk county voted bond issue for road improvements. Address Precinct Commissioners.

Tex., Pilot Point.—City and adjacent territory known as Precinct No. 2 votes June 21 on \$125,000 bond issue for road building; W. D. Burks, Mayor.

Tex., Plainview.—City awarded contract to J. E. Penick to place concrete street crossings, to be five feet wide in residence section and seven feet in business districts; \$10,000 bond issue available.

Tex., Sanger.—Sanger Precinct of Denton county will vote on \$125,000 bond issue for road construction. Address County Commissioners.

Tex., Texarkana.—City votes June 30 on \$225,000 bond issue for street and bridge improvements. Address The Mayor.

Tex., Yoakum.—City awarded contracts for 10,000 feet cement sidewalks. Address The Mayor.

Va., Basic City.—City will pave main business street from 4th St. to Rockfish Rd. Address The Mayor.

Va., Cumberland.—Cumberland county will construct following soil roads: Whitelyville and Thomas Chapel, 1.3 miles; Farmville towards Cumberland Courthouse, 2 miles; Cumberland Courthouse towards Farmville, 1.6 miles; Cumberland Courthouse and Centerville, 1.5 miles; Farmville towards Jamestown, 1 mile; bids received until June 14; P. St. J. Wilson, State Highway Engineer, Richmond, Va. (See "Machinery Wanted.")

Va., Danville.—Board of Aldermen appropriated \$40,000 for streets and bridges; J. O. Magruder, City Engineer.

Va., Norfolk.—Board of Control will regulate and repave Bank St. from Main St. to south curb line of City Hall Ave.; work will consist of about 500 linear feet on new curbing, 500 linear feet of old curbing culled and reset, 1550 square yards wood-block paving and 100 cubic yards extra concrete under tracks; bids received until June 9; W. T. Brooke, City Engineer. (See "Machinery Wanted.")

Va., Staunton.—Supervisors Augusta County awarded contract to W. D. Weaver of Harrisonburg, Va., to construct roads in Sections Nos. 1 and 5; Board will consider bids for macadamizing additional roads June 26; bond issue authorized.

W. Va., Fairmont.—Fairmont District of Marion county voted \$400,000 bond issue for road construction; plan to pave 20 miles of road this year. Address County Commissioners.

W. Va., Huntington.—City voted \$180,000 bond issue for paving and sewer construction; Floyd S. Chapman, Mayor. (See "Sewer Construction.")

SEWER CONSTRUCTION

Ark., Argenta.—Improvement District Nos. 15 and 16 will construct one mile of vitrified pipe sewer in each district in connection with paving; Lund & Hill, engineers;

bids received until June 2. (See "Roads and Streets" and "Machinery Wanted.")

Ark., Brinkley.—Board of Commissioners, District No. 1, will construct sewers and sewage treatment works; about 7 miles 8-inch to 12-inch pipe, 42 manholes, 32 flush tanks; sewage treatment works and pumping equipment; bids received until June 12; Elmo Chaney, chairman; Frank L. Wilcox, engineer, Chemical Bldg., St. Louis, Mo.; bids recently noted to be received June 19. (See "Machinery Wanted.")

Ark., Little Rock.—Sewer District No. 77, T. E. Smith, superintendent, care of Cooper-Dickinson Grocer Co., will construct sewer; bids received until June 9; plans and specifications at office of H. Levinson, Superintendent of Public Works. (See "Machinery Wanted.")

Ga., Albany.—City votes July 24 on \$2500 bond issue to extend sewer system; H. A. Tarver, Mayor. (Recently mentioned.)

Ga., Atlanta.—Chairman of Sewer Committee receives bids at office of R. M. Clayton, chief of construction, until June 10 for construction of two groups of sewers, each about five miles long. Specifications obtainable on application to Mr. Clayton. (See "Machinery Wanted.")

Ga., Cordele.—City awarded contract to Frank Moore & Co., Savannah, Ga., at about \$2500 to extend sewer system; 9000 feet eight-inch pipe; Arthur Pew, engineer, 619 Temple Court Bldg., Atlanta, Ga. (Call for bids lately noted.)

Ga., Jackson.—City will vote on about \$20,000 bond issue to construct sewer system; W. E. Watkins, Mayor. (Recently mentioned.)

Ga., Savannah.—City Council accepted contract between municipal government and H. S. Jaudon Engineering Co. of Savannah for extension and improvement of house and storm-drainage system; estimated cost, \$991,000; proceeds from \$600,000 bond issue available; W. O'D. Rockwell, City Engineer. (Previously mentioned.)

Ky., Danville.—City will construct sanitary and storm sewers; work includes 430 feet 36-inch, 575 feet 36-inch, 450 feet 30-inch, 450 feet 27-inch, 104 feet 24-inch, 1885 feet 8-inch vitrified sewer pipe; necessary inlets, manholes and flush tanks, and alterations and additions to sewage-disposal plants; bids received until June 14; plans and specifications at office of W. S. Shields Company, 1201 Hartford Bldg., Chicago, Ill., and at Water Office, Danville; J. M. Wallace, Mayor. (See "Machinery Wanted.")

Ky., Louisville.—Board of Public Works awarded contract to J. H. Cahill at \$90,041.21 to construct sewers in Shelby and Preston Sts. (Recently noted.)

La., Baton Rouge.—City voted \$38,000 bond issue for sewer extension and \$20,000 bond issue for drainage; recently noted; B. Swartz, City Engineer. (See "Road and Street Work.")

Md., Baltimore.—Board of Awards let contract to C. Bevan Clark & Co., 200 E. Randall St., Baltimore, at \$100,162.40 to construct Section 8 of high-level interceptor, sanitary contract No. 114, and to Carozza, Levezza & Carozza, at \$23,870.30, to lay house connections across footway in District 20-B, sanitary contract No. 115; rejected all bids for sanitary contract No. 116, calling for laying lateral sewers and house connections in District No. 22-B. (Call for bids lately noted.)

N. C., Rocky Mount.—City voted \$135,000 bond issue for sewer extension, water-works, electric-light plant and paving; W. L. Parrott, Mayor. (Recently mentioned.)

Okla., Cushing.—City will expend \$35,000 to construct 6 to 15-inch sanitary-sewer system; install two 10x75 septic tanks, each to have two filter beds; Guy V. McClure, City Engineer, Oklahoma City, Okla.; contract recently noted awarded to Stokes Construction Co., Box 153, Cushing. (See "Machinery Wanted.")

Okla., Durant.—City retained Benham Engineering Co., 435 American National Bank Bldg., Oklahoma City, Okla., as consulting engineer for sewer extension; W. P. Danforth, City Engineer. (\$72,000 of bonds recently noted voted.)

Okla., Tulsa.—City will construct sanitary sewers in District No. 26; bids received until June 9; T. C. Hughes, City Engineer. (See "Machinery Wanted.")

S. C., Lancaster.—City contemplates voting on \$45,000 bond issue to construct sewer system. Address The Mayor.

Tex., Galveston.—Board of Commissioners will construct 8-inch sewer lateral in alley between Avenues R and R-1/2; will require about 700 linear feet 8-inch vitrified pipe, 700 linear feet 2x10-inch foundation plank, two manholes complete and 23 pieces 6x8-

inch "T" branches; bids received until June 7; John D. Kelley, City Secretary; A. T. Dickey, City Engineer. (See "Machinery Wanted.")

Tex., Texarkana.—City votes June 30 on \$60,000 bond issue to extend and improve sewer system. Address The Mayor.

W. Va., Huntington.—City voted \$180,000 bond issue for sewer construction and paving; also \$20,000 bond issue for incinerator; Floyd S. Chapman, Mayor. (Recently mentioned.)

TELEPHONE SYSTEMS

Ark., Harrison.—Boone County Telephone Co., capital stock \$12,000, organized with J. H. Fowler president, W. H. Cecil vice-president, Claude Wilson secretary-treasurer; purchased Southwestern Telephone & Telegraph Co.'s plant.

N. C., Asheville.—Mica.—Standard Mica Co., capital stock \$25,000, incorporated by F. A. Summers, H. B. Stevens and John B. Anderson.

Tenn., Erwin.—Unicoi Telephone Co. increased capital stock from \$5000 to \$10,000.

Tex., Austin.—Southwestern Telephone & Telegraph Co. (Main office, Dallas, Tex.) has plans and specifications for four-story telephone exchange. (Previously mentioned.)

TEXTILE MILLS

Ala., Stevenson.—Cotton Yarns.—Stevenson Cotton Mills (recently noted to have awarded machinery contract) states has added 480 twister spindles and 200 spooler spindles; plant contains 3120 spinning spindles; weekly product about 15,000 pounds yarns.

N. C., Hickory.—Hosiery.—Best Knitting Mills organized; install 24 knitting machines driven by electric power; machinery cost \$3300; daily capacity, 150 dozen pairs hosiery.

Tex., Dallas.—Cotton Bagging.—Texas State Ginners' Association, F. W. Jackson, president, plans to build cotton-bagging factory.

Tex., Dallas.—Cotton Bagging.—C. H. Thomas, of Dallas Waste Mills, will build cotton-bagging mill.

Tex., Wichita Falls.—Cotton Goods.—Frank Kell writes to Manufacturers Record: "Have not perfected organization for erecting cotton mill; now soliciting stock subscriptions." (Recently mentioned in connection with \$500,000 mill proposition.)

Va., Richmond.—Cotton Goods.—A. T. Shepherd and Charles K. Bryant, architects, will prepare plans and specifications for construction of cotton mill.

WATER-POWER DEVELOPMENTS

Ark., Heber Springs.—U. S. Bratton, president of Arkansas Public Service Co., Little Rock, Ark., is negotiating for water-power site on Little Red River near Heber Springs; plans to construct hydro-electric plant developing 3000 horse-power; has 20-year electric-lighting franchise at Heber Springs and proposes establishing plant within 60 days. (Arkansas Hydro-Electric Co., U. S. Bratton, secretary, previously reported as incorporated with \$500,000 capital to build 700x50-foot dam for developing 10,000 horse-power for transmission to Heber Springs, Augusta, Bald Knob, Judsonia, Kensett and Beebe.)

La., New Orleans.—Southern Hydro-Electric Co., D. L. Rush, P. O. Box 285, is preparing to promote development of water-power sites on small streams in Louisiana and Mississippi. (See "Machinery Wanted.")

N. C., Maxton.—Maxton Light & Power Co., J. J. Kincald, president, will expend \$15,000 to erect hydro-electric plant recently noted; plans prepared by American Machine Manufacturing Co., Charlotte, N. C.; awarded contract for water-wheels, exciter and switchboard; install 100-horse-power boiler. (See "Machinery Wanted.")

N. C., Milburnie (not a postoffice).—Caroline Ice & Electric Co., Raleigh, N. C., will construct hydro-electric plant; awarded contract to Cooper Bros., Raleigh, to construct masonry dam 12x500 feet, to cost \$12,000, and develop 200 horse-power.

Tenn., Memphis.—Blue Ridge Power Co., initial capital \$25,000, incorporated by James G. Johnson, W. M. Cox, C. E. Gore and E. N. Rogers, who are said to represent Eastern capitalists.

Tex., Denison.—Texas Power & Light Co., Dallas, Tex., wires Manufacturers Record: "Contemplating building steam plant on Red River four miles north of Denison within next two years; capacity, 10,000 to 15,000 kilowatts; ultimate capacity, 15,000 kilowatts; probably designed by Sargent & Lundy, Chicago, Ill." (Recently reported as applying for municipal lighting franchise

and planning to construct hydro-electric plant on Red River.)

Tex., Seguin.—Guadalupe Water Power Co. will complete this month engineering work for developing water-power on Guadalupe River and constructing 250 miles inter-urban railway system; contemplates construction of five or six reinforced concrete dams; will soon organize Central Texas Traction Co. to build railway. (Guadalupe company previously reported incorporated with \$600,000 capital stock to develop 4000 horse-power for transmission by electricity, John W. Maxey of Houston, Tex., being chief engineer.)

Va., Bristol.—Charles F. Hagan controls water-powers which will be developed to transmit electricity for mining more than 2,000,000 tons coal annually.

WATER-WORKS

Ala., Tuscaloosa.—City contract for water-works construction (recently noted) was awarded to Pennell Contracting Co., Tuscaloosa; cost \$13,000; Morris Knowles, consulting engineer, 2548 Oliver Bldg., Pittsburgh, Pa.

Ark., Conway.—Board of Improvement of Conway Water-works District and Joseph McCoppin, contractor, Little Rock, Ark., are conferring relative to completion of water system; stated Mr. McCoppin will reline reservoir and place in water-tight condition; reservoir work to be under supervision of G. H. Burr, engineer.

Fla., Jacksonville.—City will make extension to water mains; cost \$46,743.79; work by Water Department; no bids; William S. Jordan, Mayor.

Fla., Newberry.—City awarded contract to J. B. McCrary Company, Atlanta, Ga., at \$26,500 to construct water-works and electric-light plant.

Ga., Albany.—City votes July 24 on \$12,000 bond issue to extend water mains; H. A. Tarver, Mayor. (Recently mentioned.)

Ky., Elizabethtown.—City awarded contract to Murphy Bros., Bowling Green, Ky., for rock excavation, cutting down bluff and building stone wall to separate spring water from Valley Creek.

Ky., Paducah.—General Council is considering installation of pumping station for water-works; estimated cost, \$10,000; L. A. Washington, City Engineer.

La., Bastrop.—City plans to enlarge water-works and electric-light plant; install 75-horse-power Corliss engine, two 100-horse-power water-tube boilers, air compressor, force pump, heater and reservoir; also 50,000-gallon tank on 80-foot tower; J. K. Skipworth, Mayor.

Miss., Coldwater.—C. L. Graham will construct water-works.

N. C., Raleigh.—City will expend \$67,000 in improvements to water-works system of Wake Water Co., including impounding reservoir on land of Central Hospital, to contain at least 200,000,000 gallons, \$20,000; duplicate gravity intake pipe, \$7500; 16-inch force main from pumping station to city, \$30,000; 3,500,000-gallon pump and repairs to oldest pump, \$12,500; new boiler and stack at pumping station, \$2500; pipe line will require cast-iron pipe as follows: 14-inch, 3435 feet; 12-inch, 5815; 10-inch, 2244; 8-inch, 7999; 6-inch, 59,267; 4-inch, 13,458 feet; Richard B. Seawell, City Engineer. (Recently mentioned.)

N. C., Rocky Mount.—City voted \$135,000 bond issue for water-works, electric-light plant, paving and sewer extension; W. L. Parrott, Mayor. (Recently mentioned.)

Okla., Cushing.—City will expend \$45,000 to improve water-works; will lay 7.5 miles water mains; erect brick pumping-house 15x15 feet; install 5x8 triplex pump with 20-horse-power three-phase motor; construct 12-foot open caisson well 30 feet deep; Guy V. McClure, engineer in charge, Oklahoma City, Okla.; contract recently noted awarded to Stokes Construction Co., Box 153, Cushing. (See "Machinery Wanted.")

Okla., Durant.—City retained Benham Engineering Co., 435 American National Bank Bldg., Oklahoma City, Okla., as consulting engineers for water-works extension; W. P. Danforth, City Engineer. (Bond issue of \$13,000 recently noted voted.)

Okla., Vallant.—City will vote on \$51,000 bond issue to construct water-works and electric-light plant; E. W. Gantt, consulting engineer, Sam Houston Life Bldg., Dallas, Tex.

S. C., Lancaster.—City contemplates voting on \$12,000 bond issue to extend water-works. Address The Mayor.

Tenn., Greeneville.—City contemplates bond

issue to construct water-works. Address The Mayor.

Tex., Spur.—City voted \$25,000 bond issue to construct water-works. Address The Mayor.

Tex., Waco.—Water Commission is considering plans for water-works extension; estimated cost of building \$25,000.

Tex., Willis Point.—City voted bond issue to construct water-works. Address The Mayor.

Tex., Winnsboro.—City will construct water-works system; bids received until June 9 (extended date) for furnishing and laying cast-iron pipe, erecting pumping equipment, building pumping station, earth dam, tank and tower; will require 6000 feet 8-inch, 2600 feet 6-inch, 300 feet 4-inch cast-iron pipe and 1500 feet 2-inch galvanized iron pipe, valves and hydrants, 40-horse-power distillate engine, 500-gallon-per-minute triplex pump, 2900 cubic yards earth work, 15x19-foot pumping station and 100,000-gallon elevated tank; Gordon Alvis, City Secretary; recently noted. (See "Machinery Wanted.")

W. Va., Uniontown.—City will construct concrete reservoir; 100,000 gallons capacity; requires about 600 cubic yards; bids received until June 3; John L. Rowan, Mayor.

WOODWORKING PLANTS

Md., Baltimore.—Wagons.—John C. Raum & Son, 405 S. Sharp St., will let contract to Frederick Becker, Wilkens Ave., Baltimore, to erect building; 126x63 feet; one and two stories; mill construction; building to be used for paint shop for wagons and automobiles. (Recently noted.)

Mo., Kansas City.—Handles.—Winters Handle Co., capital stock \$20,000, incorporated by Herman, Hans and Herbert Diecks.

N. C., Charlotte.—Furniture.—Klutz Furniture Co., capital stock \$25,000, incorporated by H. V. Klutz, James T. Porter and E. R. Smith.

N. C., Durham.—Vehicles, etc.—C. P. and C. C. Howerton awarded contract to Bernice Bowles at about \$15,000 to erect three-story building to be equipped as manufacturing plant of Durham Vehicle & Harness Co.; first floor to be used as repository for carriages, automobiles, etc., and as garage equipped with automobile machinery.

N. C., Wilmington.—Handles.—Wilmington Handle Co. will rebuild plant recently reported burned at estimated loss of \$40,000; plans include brick drykiln, boiler-house, remodeling of present mill building as saw-mill 35x150 feet, and new main plant 50x210 feet; total cost about \$30,000.

Tex., Weatherford.—Clothes Pins.—Peerless Clothes Pin Co. (recently noted) will manufacture wire clothes pins. (See "Metal-working Plants.")

W. Va., Twin Mountain.—Telephone Pins.—Twin Mountain Orchards, W. P. Russell, manager, Keyser, W. Va., will rebuild telephone and telegraph-pin factory recently reported burned; 49x60 feet; mill construction; bids opened; cost of machinery, \$2000; daily capacity, 10,000 pins. (See "Machinery Wanted.")

BURNED

Ala., Anniston.—Residence owned by Mrs. W. C. Warnock, Oxford, N. C.; loss \$3000.

Ala., Birmingham.—E. M. Burleson's residence at 2709 Nineteenth Ave. N.; loss \$3500.

Ala., Cleveland.—Armstrong Hotel; loss \$3500.

Ala., Citronelle.—Hygea Hotel, owned by R. R. Moyers; loss \$50,000.

Ala., Jasper.—J. Canter's store; Mrs. R. L. Lambert's store; T. H. Wilkinson's store; W. R. Hunter & Co.'s store; loss \$10,000.

Ala., Pratt City.—C. D. Comstock's residence; loss \$7000.

Ala., St. Elmo.—R. E. Bouchard's store and dwelling; loss \$10,000.

Ark., Argenta.—First Baptist Church damaged, loss \$3000; residence owned by George Elchoff, Little Rock, Ark.

Ark., Yellville.—W. I. Taylor's store and dwelling; loss \$5000.

D. C., Washington.—Residence at Oak and Tulip Aves., Takoma Park, owned by Mrs. Theodore P. Culley, Earlhaven, Takoma Park; loss several thousand dollars.

Fla., Jacksonville.—H. Randolph's residence, owned by E. M. Delgado estate; loss \$10,000.

Ga., St. Marys.—Atlantic, Waycross & Northern Railroad's docks; L. Johnson, president; also municipal docks.

Ky., Anchorage.—Dwellings owned by Lawrence Jones of Paul Jones & Co., Louisville, Ky.; loss \$20,000.

Ky., Campton.—Wolfe county courthouse. Address County Commissioners.

Ky., Harlan.—Dan Howard's hotel and store buildings; H. H. Blanton's dwellings; Miss Mattie Smith's store; Margerie Noe's store, and other structures; total loss \$40,000.

Ky., Louisville.—A. Englehard & Sons Co.'s store at 805 W. Main St.

Ky., Louisville.—Wood-Mosaic Flooring & Lumber Co.'s drykiln and sawmill; loss \$65,000.

Ky., Versailles.—Breck B. Chapman's stable and store; loss \$9000.

La., Athens.—Athens Lumber Co.'s sawmill.

La., Monroe.—Iron Mountain Bakery; estimated loss, \$4000.

La., New Orleans.—J. L. Mahoney's stable at Richard and Annunciation Sts.; loss \$5000.

Md., Annapolis.—Thomas Winchester's residence in West Annapolis; loss \$6000.

Md., Brooklyn.—Louis Greenstein's store at Patapsco and First Aves.; loss \$4000.

Md., Mount Winans.—Phillip Satsky's store at 9 Washington Rd.; Charles Rosenberg's store, 11 Washington Rd., damaged; Harry Bender's building damaged; total loss \$15,000.

Miss., Summit.—Summit Saw & Planing Mill Co.'s plant; estimated loss \$8000.

Miss., Wiggins.—American Pickle & Canning Co.'s plant; reported loss, \$50,000.

Miss., Greenwood.—Millsap building, occupied by R. J. Moore and others; loss \$5600.

Mo., Kansas City.—Lyle Rock Co.'s three sheds, office building and rock crusher; estimated loss \$10,000.

Mo., St. Louis.—Max Cohen's warehouse at Lewis and Biddle Sts.; loss \$30,000.

N. C., Ayden.—Free Will Baptist Publishing Co.'s printing plant; Advance Publishing Co.'s plant; Rose Hotel.

N. C., Weldon.—Weldon Lumber Co.'s sawmill; loss \$25,000 to \$30,000.

Okla., Olustee.—Olustee Drug Co.'s store;

postoffice and several other buildings; total loss \$50,000.

Okla., Durant.—Joe Wofford's residence; loss \$4500.

Okla., Granite.—P. W. Slaton's cotton gin; estimated loss \$12,000.

Okla., Jay.—Delaware County Courthouse; Caulk & Sanders' store; loss \$20,000.

S. C., Cheraw.—Hoover Lumber Co.'s sawmill, boiler-house and tank; loss \$40,000.

Tenn., Athens.—McConkey & Jones' building; John McGaughey's tin shop; Mr. Capers' skating rink.

Tenn., Hinson Springs.—Hinson Springs Hotel, owned by Hinson Springs Hotel Co., W. F. Barcroft, manager; loss \$36,000.

Tenn., Murfreesboro.—King, Ragland & Co.'s building, Henry King, president; loss \$40,000 to \$50,000.

Tenn., Pigeon Forge, R. Station Sevierville.—Farmers' Supply Co.'s building; loss \$7000.

Tex., Abilene.—J. C. Burleson's residence at 4th and Milton Sts.; cost \$3600.

Tex., Dallas.—Horace Chilton's residence at 4117 Swiss Ave.; loss \$7000.

Tex., Leesville.—Louis Karney's cotton gin; loss \$3000.

Tex., Merkel.—W. T. Daniels' residence; loss \$3250.

Tex., Waco.—Building at Cherry and Taylor Sts., owned by W. W. Seley, Sam Sanger and W. W. Cameron; loss \$10,000.

Va., Ruther Glen.—Plant of Gray Bros. Excelsior Co., Woodford, Va.; loss, with wood, about \$5000.

Va., Suffolk.—W. S. Cross & Co.'s store.

W. Va., Glatto.—Two buildings owned by G. P. Bailey; Hotel Powhatan; store and residence of Ed. White; residences of Mrs. S. Lilly, Alex. Lilly, Charles E. Ashworth and Zeb Gilliam; approximate loss \$10,800.

W. Va., Moundsville.—Gospel Trumpet Bldg., owned by C. G. and W. T. Hughes; loss \$10,000.

W. Va., Sophia.—Nick Marconi's bakery, loss \$5000; W. J. Lovell's store.

Tex., Grapeland.—Ancient Free and Accepted Masons have plans by W. A. Norris for lodge building; 30x30 feet; fireproof construction; cost \$4000. (Recently noted.)

Va., Petersburg.—Young Men's Christian Association will receive bids until June 6 to erect building according to plans by Shattuck & Hussey, Chicago, Ill. (Recently noted to have rejected other bids.)

Va., Richmond.—Grove Building Association has plans by W. R. Smith, 2305 Fairmount Ave., Richmond, for lodge building for Grove Council, Junior Order of United American Mechanics; 30x60 feet; two stories; ordinary construction; brick. (Recently noted.)

W. Va., Keyser.—Uniform Rank, Knights of Pythias, plans to erect armory; cost \$8000.

BANK AND OFFICE

D. C., Washington.—William Henry Walker has plans by Waddy B. Wood, 516 Connecticut Ave., Washington, to erect office building on New York Ave., to be occupied by bureaus of Navy Department; cost \$350,000.

Fla., Miami.—Miami Bank & Trust Co. has plans by H. Mundy, Miami, for building on 11th St. between C and D Sts.; one story; foundation to support additional stories; 30x50 feet; cost \$5000.

La., Alexandria.—Commercial Bank & Trust Co., W. D. Haas, president, Bunkie, La., plans to erect bank building at 3d and Johnson Sts.

Md., Sudlersville.—Sudlersville Bank is having plans prepared by Brinckloe & Canning, Easton, Md., for bank building; cost \$5000.

Miss., Biloxi.—A. L. Hahn will erect store and office building; brick.

Miss., Jackson.—John Iedler, Jr., will erect six-story office building on Capitol St.

Miss., Wheeler.—Wheeler Banking Co., L. C. Prather, Baldwin, Miss., will erect 25x60-foot bank building, with vault; ordinary construction; no bids.

N. C., Wilmington.—Murchison National Bank has plans by K. M. Murchison, 208 Fifth Ave., New York, for bank building; 63x110 feet; cost \$100,000. (Previously noted.)

N. C., Washington.—W. C. Rodman will erect office building on Main St.; two stories; brick.

Tenn., Memphis.—John B. Robinson Building Co. incorporated with \$100,000 capital stock by A. W. Tenger, Mrs. L. R. Boyd, Alston Boyd, J. F. Hunter and Lella Boyd; will erect office building at Madison Ave. and Maiden lane. (Alston Boyd and associates recently noted to erect 14-story building on this site; 28x145 feet; structural iron and brick; cost about \$250,000.)

Tex., Dallas.—Ginnery's Mutual Insurance Co. will erect office building.

Tex., Gatesville.—Roy E. Lane, architect, Waco, Tex., receives bids until June 5 to erect office building for O. T. Wells and store and office building for J. R. Brown. (See "Churches.")

Tex., Port Arthur.—Merchants' State Bank has plans by C. D. Hill & Co., Dallas and Houston, Tex., for bank and store building; 14x285 feet; former fireproof; latter mill construction; cost \$35,000. (Recently noted.)

Tex., Yoakum.—First State Bank is having plans prepared by J. Henry Yentzen, Box 468, Yoakum, for building; granite and stone trimmings; asbestosolth, mosaic and cork tile floors; electric wiring.

W. Va., Charleston.—A. H. Boyd opens bids July 1 to erect office and store building; three stories; brick; ordinary construction; gas heat; five-ply asbestos roof; cost \$20,000; plans by J. A. St. Clair, Charleston.

W. Va., Wheeling.—National Bank of West Virginia will erect bank building.

CHURCHES

Ark., Mammoth Springs.—Methodist Church will erect stone building; seating capacity 500; cost \$10,000. Address The Pastor, Methodist Church.

Ala., Montgomery.—Court Street Methodist Church, Rev. James O. Grogan, pastor, plans to expend \$15,000 for improvements to building, to include repairing and refurnishing basement, floors, pews, etc.

Ala., Linden.—Linden Methodist Church will erect building. Address The Pastor, Linden Methodist Church.

Ark., Argenta.—First Presbyterian Church will erect addition to building for auditorium and Sunday-school; seating capacity 300; brick veneer; gas stoves; electric lighting; slate roof; cost \$4000; plans by H. J. Harker, Little Rock, Ark.; proposals may be addressed to T. B. Anderson, Argenta.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ark., Little Rock.—W. Peterson will erect two-story brick apartment-house at 1005-07 W. Capitol Ave.; cost \$16,000.

D. C., Washington.—Harry Wardman, 1342 New York Ave., it is reported, has plans by F. R. White & Co., 1701 Park Rd. N. W., Washington, for five-story apartment-house at 1400 Fairmont St.; cost \$245,000; construction by owner.

Mo., St. Louis.—W. L. White will erect two-story tenement-house at 463 Laurel St.; cost \$4500.

Mo., St. Louis.—A. J. McGowan will erect two-story flat at 5141 N. Market St.; cost \$4200.

Mo., St. Louis.—Jessie Morris Real Estate Co. will erect two three-story apartments at 4333-37 Laclede Ave.; cost \$24,000.

Mo., St. Louis.—J. Charles Mueller, 2500 Hebert St., will expend \$5200 to erect tenement-house; 24x51 feet; ordinary construction; furnace; electric lighting; tar and gravel roof; plans by Nolte & Naumann; construction by owner. (Recently noted.)

Mo., St. Louis.—R. A. and G. Bullock, 334 Fullerton Bldg., will erect two three-story apartment buildings at 5557-59 Berling Ave.; 28x60 feet; mill construction; brick; steam heat; cost \$15,000; plans by Nolte & Naumann; construction by owner.

Mo., St. Louis.—Franklin Realty Co. will erect three-story apartment-house and one-story garage at 5572 Waterman Ave.; cost \$14,900.

Mo., St. Louis.—Caroline Holtz will erect two-story flat at 3230 Winnebago St.; cost \$4500.

Mo., St. Louis.—F. Lacher will erect two-story flats at 2910 Miami St.; cost \$3800.

Mo., St. Louis.—O. Haupt will erect two-story apartment building at 2657-59 Minnesota St.; cost \$3900.

N. C., Wilmington.—H. W. Konig, 901 4th St., has plans for apartment and store building. (See "Stores.")

Tenn., Nashville.—Mrs. V. O. Claybrook will erect flat on Highland Ave.; cost \$4000.

Va., Norfolk.—Eason & L'Anson, Seaboard Bank Bldg., have plans by Arnold Eberhard

& Son, Norfolk, for apartment-house; 37x70 feet; ordinary construction; steam heat; electric lighting; slag roof; cost \$15,000; bids opened May 30. (Commonwealth Land Corporation recently noted to erect building.)

Va., Petersburg.—Sycamore Apartments, Inc., opens bids about June 5 through architects, A. T. Shepherd and Charles K. Bryant, 406 Park Bldg., Richmond, Va., to erect apartment-house; 60x130 feet; steam heat; gas and electric lighting; electric elevator; slag roof; cost \$100,000. (Recently described.)

Va., Richmond.—Virginia Realty & Construction Co. will erect two-story brick tenement-house at 1719-21 Hanover Ave.; 42x52 feet; four flats; ordinary construction; hot-water heat; electric lighting; tin roof; cost \$19,000; plans and construction by owner.

ASSOCIATION AND FRATERNAL

Ala., Linden.—Ancient Free and Accepted Masons will, it is reported, erect building; stone or brick.

Ark., Texarkana.—Benevolent Protective Order of Elks will erect lodge building; cost \$60,000.

D. C., Washington.—National Union, Bond Bldg., is having plans prepared by Gregg & Lisenring for building at 1108-10 9th St. N. W.; seven stories; 54x138 feet; two stores on lower floor; upper floors for lodgerooms, auditorium, etc.; cost \$125,000.

Fla., St. Augustine.—Fraternal Building Co., B. E. Dyson, secretary, has plans by C. M. Milburn, St. Augustine, to remodel second and third floors of building for lodge purposes; cost \$3000.

Fla., St. Petersburg.—Young Men's Christian Association plans to erect building.

N. C., Durham.—Benevolent Protective Order of Elks, William G. Bramham, exalted ruler, plans to erect lodge building; cost \$35,000.

Md., Baltimore.—Baltimore Lodge No. 70, Loyal Order of Moose, F. Friedmann, secretary, 410 W. Fayette St., will erect lodge building adjoining present structure; three stories; brick and stone; 54x133 feet; bowling alleys; shower baths, etc., in basement; auditorium to seat 1000 on second floor. (Recently noted.)

Ark., Clinton.—Methodist church will erect building. Address The Pastor, Methodist Church.

D. C., Washington.—St. Margaret's Church, Connecticut Ave. and Bancroft St., will expend \$19,000 to repair church. Address The Pastor, St. Margaret's Church.

Fla., Passagrille.—Methodist church accepted specifications for building; buff-colored brick; 90x65 feet; stained-glass windows; seating capacity 1000; cost \$30,000 to \$25,000. Address the Pastor, Methodist Church.

Fla., St. Petersburg.—First Methodist Episcopal Church, Rev. S. A. Keen, pastor, has plans by Bonfoey & Elliott, Tampa, Fla., for building previously noted; ordinary construction; cost \$30,000 to \$25,000. (See Machinery Wanted.)

Ga., Atlanta.—Unitarian Church of Our Father opens bids in fall to erect building; ordinary construction; steam heat; electric lighting; slate roof; cost \$30,000; plans by W. A. Edwards, 632 Candler Bldg., Atlanta. (Recently noted.)

Ky., Greenville.—Presbyterian Church is having plans prepared by Joseph & Joseph, Louisville, Ky., for building.

Md., Baltimore.—Advent Chapel, Rev. C. P. Sparling, rector, 1301 S. Charles St., has plans by Watson & Huckel, 1211 Walnut St., Philadelphia, Pa., for building; brick and stone; concrete foundation; cost \$30,000; contractors estimating are J. Henry Miller, Inc., 108 Dover St.; Morrow Bros., Fidelity Bldg.; John Hiltz & Son, 7 Clay St.; John F. Kunke, 413 King St.; George Bunnecke & Sons, 305 St. Paul St.; all of Baltimore. (Previously noted.)

Md., Baltimore.—Second Presbyterian Church, Rev. Edward Niles, pastor, 1214 N. Caroline St., will improve building at estimated cost of \$5000; plans call for new roof, repairing steeple, electric-lighting plant, plumbing system, refrescoing, recarpeting, repainting interior, etc.

Md., Baltimore.—St. John's Evangelical Lutheran Church, Lombard and Catherine Sts., has plans by Walter M. Gieske, 66 Gunther Bldg., Baltimore, for improvements to church; will remodel interior, install metal ceiling, steam-heating plant, electric-light fixtures, construct facade on Lombard St., etc.; contractors estimating are J. Henry Smith, 1426 Light St.; Willard T. Harn Company, 213 N. Calvert St.; George Repp, 14 Stinson St.; Thomas B. Stanfield, 109 Clay St., all of Baltimore.

Md., Hagerstown.—First Christian Church will erect Bible school annex. Address The Pastor, First Christian Church.

Md., Mt. Washington.—Church Extension Society of Methodist Episcopal Church, Rev. C. W. Baldwin, superintendent, 226 West Lafayette Ave., Baltimore, Md., plans to erect church building.

N. C., Gastonia.—First Presbyterian Church, J. Lee Robinson, secretary, will expend about \$13,000 to erect Sunday-school addition; two stories; 50x70 feet; ordinary construction; steam heat; slate roof; plans by Hook & Rogers, Charlotte, N. C.; day labor. (Recently noted.)

N. C., Smithfield.—Methodist church has plans by J. E. Greene, Columbia, Miss., for building; 78x52 feet; ordinary brick construction; hot-air heat; composition and tile roof; cost \$30,000.

N. C., Winston-Salem.—Moravian congregation, Rev. J. F. McCulston, pastor, plans to erect brick church building at 4th St. and Claremont Ave.

S. C., Charleston.—Cannon Street Baptist Church, Rev. J. E. Bailey of Saluda, S. C., pastor, will erect church building and Sunday-school; brick; cost \$25,000. (Lately noted.)

Tenn., Dandridge.—Baptist church will erect building to replace burned structure. Address The Pastor, Baptist Church. (Previously reported burned at loss of \$4500.)

Tenn., Knoxville.—People's Tabernacle, Rev. W. E. Parry, pastor, has plans by Albert Gredig, Knoxville, for tabernacle; 75x40 feet; mill construction; cost about \$5000. (Previously noted.)

Tenn., Knoxville.—Rev. J. F. Penn, pastor of Pentecostal Mission, is reported as interested in erection of mission.

Tenn., Nashville.—Centennial Church will rebuild structure at Eighth Ave. and Central St.; cost \$3500. Address The Pastor, Centennial Church.

Tex., Cameron.—Methodist church will erect brick building. Address The Pastor, Methodist Church.

Tex., Gatesville.—Roy E. Lane, architect, Waco, Tex., receives bids until June 5 to erect two-story-and-basement brick church

for Methodist congregation, Rev. Clovis Chappel, pastor; also at same time separate bids for three-story brick office for O. T. Wells and two-story brick store and office building for J. B. Brown; plans on deposit of \$10.

Tex., Orange.—Methodist church is having plans prepared by Flanders & Flanders, Dallas, Tex., for building.

Va., Petersburg.—Central Presbyterian Church is interested in erection of building for colored congregation; cost \$5000. Address The Pastor, Central Presbyterian Church.

Va., Front Royal.—Baptist Church is having plans prepared by A. T. Shepherd and Charles K. Bryant, Richmond, Va., for building; cost \$18,000.

Va., Richmond.—St. John's German Evangelical Church, Rev. Oscar Guthe, pastor, purchased site and will erect building; cost \$75,000; plans not adopted.

CITY AND COUNTY

Ala., Andalusia.—Jail.—Covington County Commissioners will erect jail to replace present structure.

Ala., Birmingham.—Auditorium.—Chamber of Commerce will co-operate with City Commission, Culpeper Exum, president, for bond election to provide erection of municipally owned auditorium to seat 8000.

Ala., Carrollton.—Jail.—Pickens County Commissioners adopted plans by Harry B. Wheelock, Birmingham, Ala., for jail building; two stories; brick; 34x68 feet; 10 cells; cost \$13,500. (Recently noted.)

Ala., Dothan.—City Hall.—City voted \$40,000 bond issue to erect city hall to contain auditorium to seat 2000; Joe Baker, chairman of committee to select site. (Recently noted.)

Fla., Jacksonville.—Armory.—Florida Senate concurred with House of Delegates in passage of bill authorizing Duval county to issue \$150,000 of bonds to erect armory; R. V. Covington, chairman of armory commission. (Previously noted under "Miscellaneous.")

Fla., Kissimmee.—Poor Farm.—Osceola County Commissioners, J. L. Overstreet, clerk, will soon award contract to erect house at Poor Farm.

Ga., Savannah.—Auditorium.—City will vote September 15 on \$300,000 bond issue to erect auditorium; W. J. Pierpont, chairman trade and commerce and finance committees.

Ky., Louisville.—Hospital.—Joseph & Joseph, architects, Louisville, will receive bids to erect superintendent's residence at Waverly Hills Tuberculosis Hospital; cost \$10,000.

La., Baton Rouge.—Hospital, etc.—City voted \$10,000 bond issue for charity hospital and \$35,000 bond issue to purchase penitentiary site; B. Swartz, City Engineer. (See "Roads and Streets.")

La., Columbia.—Jail.—Caldwell Parish Police Jury selected site to erect \$100,000 courthouse and jail.

Md., Baltimore.—Barns, Bungalow, etc.—Board of Awards, John Hubert, president, receives bids at office of Richard Gwinn, City Register, City Hall, until June 11 to erect cow and feed barns and bungalow at Bayview Asylum; drawings and specifications at office of Clarence E. Stubbs, Inspector of Buildings, City Hall.

Mo., Kansas City.—Library.—Kansas City School District voted \$250,000 for library. (See "Schools.")

Tenn., Memphis.—Art Gallery.—According to contract with Park Commission and city, Mrs. Bessie Brooks is having plans prepared for S. H. Brooks Memorial Art Gallery to be erected in Overton Park; stone; fire-proof; cost \$100,000, including architect fees.

Tex., Corpus Christi.—Jail.—Neuces county will vote first week in July on \$250,000 bond issue to erect courthouse and jail. Address County Commissioners.

Tex., Denison.—Fire Station.—City will receive bids until June 9 to erect fire station in Fourth Ward; plans and specifications at office of A. E. Clymer, City Secretary; construction under supervision of E. E. Davis, chairman fire committee. (Recently noted.)

Tex., Houston.—City Hall.—City will erect addition to city hall to include annex to Milam-street side of market-house and additional story. Address The Mayor.

COURTHOUSES

Tex., Belton.—Bell County Commissioners open bids about June 30 for alterations to courthouse; steam heat; cost (complete) \$50,000; plans by George Burnett, 1702 Amicable Bldg., Waco, Tex.

N. C., Goldsboro.—Wayne County Commis-

sioners are having plans prepared by Milburn, Helster & Co., Union National Bank Bldg., Washington, D. C., for courthouse; cost \$100,000; plans ready about July 15. J. M. Kennedy of Raleigh, N. C., recently noted as associate architect.)

N. C., Lenoir.—Franklin County Commissioners will have plans prepared by Milburn, Helster & Co., Union National Bank Bldg., Washington, for courthouse; cost \$30,000; plans ready about January 1. (Recently noted.)

Tex., Corpus Christi.—Neuces county will vote first week in July on \$50,000 bond issue to erect courthouse and jail. Address County Commissioners. (Previously noted.)

Va., Suffolk.—Nansemond county, G. E. Bunting, clerk, will receive bids until June 19 for additions and alterations to courthouse; plans and specifications at office of Ferguson, Calrow & Taylor, architects, 1024 Royster Bldg., Norfolk, Va. (Recently noted.)

DWELLINGS

Ala., Birmingham.—D. O. Whildin of Birmingham is preparing plans for two-story frame residence.

Ala., Birmingham.—H. H. Watkins will erect one two and one one-story frame building on 50th St., between Third and Fourth Aves.; cost \$3400.

Ala., Birmingham.—R. T. Pittman, 1022 Poplar St., will expend \$4000 to erect dwelling; 42x32 feet; brick veneer; slate roof; day labor. (Recently noted.)

Ala., Fairfield.—American Steel & Wire Co., Birmingham, Ala., and Rookery Bldg., Chicago, Ill., is reported to erect 75 dwellings to cost \$300,000 to \$250,000; also reported 75 additional residences will ultimately be erected; F. H. Daniels, chief engineer, Worcester, Mass., wires Manufacturers Record: "Not in position at this time to give definite information."

D. C., Washington.—L. E. Breuninger, 3208 19th St. N. W., purchased site at 16th St. and Columbia Rd. N. W.; will open streets, erect about 100 eight-room dwellings, etc.; two and three stories; ordinary construction; hot-water heat; gas and electric lighting; slag roof; cost \$140,000; plans and construction by H. L. Breuninger.

D. C., Washington.—John R. Haislip, 2120 1st St. N. W., will erect three dwellings at 1111-1115 Fairmont St. N. W.; cost \$3200; construction by owner.

Fla., Jacksonville.—W. A. Carrie will erect two-story frame dwelling on King St.; cost \$3500.

Fla., Jacksonville.—Brown Realty Co. will erect two two-story frame dwellings on 11th St. between Pearl and Perry Sts.; cost \$6500.

Fla., Jacksonville.—H. J. Warfield will erect two-story frame dwelling on Park St. between Osceola and Stockton Sts.; cost \$3000.

Fla., Jacksonville.—Armington & Son will erect two-story frame residence on Riverside Drive; cost \$15,000.

Fla., Jacksonville.—H. V. Adderly will erect two-story frame dwelling on Phelps St.; cost \$3500.

Fla., Jacksonville.—Victor G. Bird will remodel six two-story frame dwellings on Eagle St.; cost \$12,000.

Fla., Jacksonville.—C. W. Henley will erect two-story frame residence on Park St.; cost \$10,000.

Ga., Atlanta.—Anderson Bros. will erect three one-story frame dwellings; cost \$5000; day labor.

Ga., Atlanta.—Frederick Fayram will erect residence on Oakdale Rd., Druid Hills; cost \$8000.

Ga., Atlanta.—C. E. Miller will erect one-story frame dwelling at 22 Linwood St.; cost \$3250; day labor.

Ga., Atlanta.—S. A. Ozburn will erect two-story frame dwelling at 279 Ponce de Leon Ave.; cost \$3500.

Ga., Atlanta.—G. L. Mitchell will erect two dwellings on Greensferry Ave.; one story; frame; cost \$3400.

Ga., Atlanta.—Mrs. K. K. Kelly will erect residence at 90 Highland Ave.; one story; frame; cost \$3000.

Ky., Louisville.—Charles Chrestle will erect two frame dwellings at 211-13 N. 23d St.; cost \$4000.

Ky., Louisville.—L. Jacobson will erect ten frame dwellings on 35th and 34th Sts.; cost \$14,400.

Ky., Louisville.—J. R. Dorsey will erect two frame dwellings at 629-31 Grainger Ct.; cost \$4650.

La., Mandeville.—J. R. Charlton, Bartles-

ville, Okla., it is reported, will erect residence in Mandeville Heights.

La., Mandeville.—G. Moreau, 509 Olivier St., New Orleans, La., will erect residence.

La., New Orleans.—Mrs. F. Gordon will erect two-story residence on Peniston St.

La., New Orleans.—L. M. Dalgarn will erect two-story residence on Louisiana St.

La., New Orleans.—Mrs. Marie McGregor will erect residence at 5121 Dryades St.

La., New Orleans.—Edward H. Levachez will erect two-story residence.

La., New Orleans.—James D. Atkinson will erect bungalow at Pine and Short Sts.

La., New Orleans.—John Considine will erect two-story residence in Fritchard Pl.

La., New Orleans.—Mrs. Mary Maloney will erect store and residence. (See "Stores.")

La., New Orleans.—J. J. Schoendorf will erect two-story cottage on Bienville St.

La., New Orleans.—A. M. Bishop will erect two-story residence on Plum St.

La., New Orleans.—Citizens' Homestead Association will erect two-story residence on Williams St.; cost \$3000.

La., New Orleans.—Herbert Murray will erect two double two-story dwellings on Prytania St.; cost \$7200.

La., New Orleans.—E. M. Miller is having plans prepared for dwelling for Alexander Hay, 127 Carondelet St., recently noted; 28x62 feet; ordinary construction; frame and stucco; hot-air furnace; red asbestos and terra-cotta tile roof; cost \$5000; bids opened June 2. (See "Machinery Wanted.")

La., New Orleans.—W. J. Suthon will erect two double cottages to cost \$3400.

La., New Orleans.—Henry Herker will erect double cottage; cost \$3500.

La., St. Elmo (not a postoffice).—St. Elmo and Ascension Building and Loan Association organized with George W. Reese, secretary, New Orleans, La.; has plans for several California type bungalows, etc.

Maryland.—H. Melvin Bull, 76 Gunther Bldg., Baltimore, Md., purchased site on Magothy River and will erect residence.

Md., Baltimore.—John Bessel, Jr., 1734 N. Chester St., will erect dwelling on Jackson Ave. near Montana Ave.

Md., Baltimore.—E. J. Gallagher Realty Co., 602 S. Belmond Ave., has plans by E. J. Gallagher, Jr., 602 N. Belmond Ave., Baltimore, for 11 two-story brick dwellings on south side 28th St., between Hampden and Atkinson Aves.; 14x75 feet; cost \$14,500; construction by owner.

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., will erect cottage at Bateman and Roslyn Aves.; two and a half stories; shingle; 28x32 feet; cost \$4000.

Md., Relay.—Robert A. Dobbin has plans by Mottu & White, 322 N. Charles St., Baltimore, Md., for dwelling; two and a half stories; frame.

Miss., Cleveland.—C. R. Smith will expend \$11,000 to erect dwelling; plans by Weathers-Foley Company, Memphis, Tenn.; day labor. (Recently noted.)

Mo., St. Louis.—James Howard will erect two one-story dwellings at 4776-78 Labadie St.; cost \$4000.

Mo., St. Louis.—J. H. Oertle will erect two-story residence at 7029 Barthold St.; cost \$3480.

Mo., St. Louis.—Frank Barnett, Clayton, Mo., has plans by O. S. Traber, Fullerton Bldg., St. Louis, Mo., for dwelling; 27x31 feet; furnace; electric lighting; tile roof; cost \$3000; construction by owner. (Recently noted.)

Mo., St. Louis.—Thomas Lafon has plans for residence; colonial style; eight rooms.

Mo., St. Louis.—L. K. Milberger will erect two-story dwelling at 3636 Minnesota St.; cost \$3000.

Mo., St. Louis.—E. Fraunfelder will erect two-story dwelling at 1458 Adelaide St.; cost \$3300.

Mo., St. Louis.—J. A. Stern will erect two-story dwelling at 3651 Blaine St.; cost \$590.

Mo., St. Louis.—Edward Whittaker, president of Boatman's Bank, will rebuild burned residence; cost \$33,000.

Mo., St. Louis.—J. Galtsch will erect one-story dwelling at 3300 Marcus St.; cost \$3000.

N. C., Clayton.—John T. Talton contemplates erecting dwelling. (See "Machinery Wanted.")

N. C., Greensboro.—Dr. Edmund Harrison will erect residence at Elm St. and Park Drive.

N. C., Greensboro.—Prof. Wade R. Brown and Dr. D. A. Walters will erect residences in Fisher Park.

N. C., Greensboro.—H. P. Leak will erect residence on N. Elm St.

N. C., Henderson.—Mrs. J. H. Tucker and Joseph Burwell will erect several cottages.

N. C., Newbern.—Dr. Raymond Pollock will erect residence at Middle and Craven Sts.

N. C., Newbern.—Jesse S. Claypoole will erect residence.

N. C., Winston-Salem.—E. C. Clinard will erect residence on 4th St.; two stories; 14 rooms; frame; shingle roof; city water and sewer connections; gas and electric lights; cost \$6500.

N. C., Winston-Salem.—Ralph Clinard will erect two dwellings and garage on Brookstown Ave.; two stories; seven rooms; frame; shingle roof; city water and sewer connections; electric lights; cost \$3500.

S. C., Greenville.—Mrs. W. E. Beattie will erect two-story dwelling on Pinkney St.; cost \$3000.

Okla., Tulsa.—J. E. Van Sant, 835 N. Elwood St., will expend \$4000 to erect dwelling; 42x33 feet; mill construction; gas furnace; electric lighting; shingle roof. (Recently noted.)

Tenn., Chattanooga.—R. T. Wright purchased 46 lots in Watkins Addition and will, it is reported, erect dwellings.

Tenn., Memphis.—E. B. Scott has plans by H. O. Scott, 1176 Forest Ave., for dwelling; two stories; seven rooms; frame; ordinary construction; hot-air heat; cypress shingle roof; cost \$4000; construction by owner. (H. O. Scott recently noted to erect dwelling.)

Tenn., Memphis.—C. J. Wagner will erect residence at 1173 Myers Ave.; cost \$5000.

Tenn., Nashville.—John B. Daniel will erect brick-veneer dwelling at 120 Twentieth Ave.; cost \$3000.

Tenn., Nashville.—Miss Blanch G. Miller will erect brick-veneer dwelling on Belmont; cost \$6700.

Tenn., Paris.—O. C. Barton is having plans prepared by Brinton B. Davis, Louisville, Ky., for residence.

Tex., Angleton.—Dr. Motheral will erect residence.

Tex., Austin.—Elizabeth Shaw will erect dwelling on Neuses St.; cost \$3000.

Tex., Dallas.—Miss D. L. Burgess will erect dwelling at 407 Willomet St.; two stories; eight rooms; cost \$3150.

Tex., Dallas.—Jane Elsy will erect residence at 4817 Ross St.; two stories; frame; seven rooms; cost \$3300.

Tex., Dallas.—T. W. Erwin will erect residence at 4832 Gaston St.; two stories; seven rooms; frame; cost \$3500.

Tex., Dallas.—D. L. Wilson will erect residence at 407 W. Jefferson St.; frame; two stories; 12 rooms; cost \$5000.

Tex., El Paso.—Mayfield Building & Improvement Co. will erect two-story residence at 2431 Montana St.; Swiss Chalet type; seven rooms; six-room bungalow at 2509 Montana St. and five-room brick bungalow at 2704 Rio Grande St.; also has plans by O. H. Thomas & Co., El Paso, for 24 dwellings on Montana and Rio Grande Sts. and Boulevard to cost from \$1800 to \$10,000 each.

Tex., Edna.—M. D. Pumphrey will erect two-story dwelling.

Tex., Houston.—John Hall will erect residence on Sherman St.

Tex., Houston.—Ed Bartholomew will erect two dwellings on Avenue C.

Tex., Houston.—G. A. Bunting will erect dwelling on Sherman St. near Wayside Drive.

Tex., Houston.—William A. Wilson will erect twelve dwellings on Euclid, Bayland, Woodland, White Oak and other streets; cost \$22,000.

Tex., Huntsville.—Mrs. C. B. Henderson will erect two-story residence; plans and specifications at 2008 Chestnut St., Houston, Tex.; bids opened June 3.

Tex., San Antonio.—L. F. Webb will erect two-story dwelling on Lewis St.; cost \$4800.

Tex., Sulphur Springs.—Professor Leewright will erect residence on Church St.

Tex., Yoakum.—E. F. Huth will erect residence in Roselawn addition; two stories; brick.

Va., Elk Garden.—J. T. Pucket is having plans prepared by Thomas S. Brown, Bristol, Va., for dwelling; colonial style; brick exterior and interior walls; copper tile roof; oak interior finish; 13 rooms; independent electric-light plant.

Va., Louisa.—W. Worth Smith, Jr., has plans by A. T. Shepherd and Charles K. Bryant, Richmond, Va., for two-story stone residence.

Va., Roanoke.—S. B. Pace will erect two-story brick-cased dwelling; cost \$3000.

GOVERNMENT AND STATE

Ark., Booneville.—Sanatorium.—Trustees of Arkansas State Tuberculosis Sanatorium will receive bids at office of Dr. C. P. Meriwether, Little Rock, Ark., to erect infirmary, laundry building and boiler-house; separate bids for plumbing, wiring and central heating plant; plans, specifications and blank form of bids at office of Dr. Meriwether, Little Rock, Ark., and A. Klingensmith, architect, Fort Smith, Ark., or may be had on deposit of check for \$15 payable to Mr. Klingensmith.

Ark., Searcy.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until July 8 for construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of United States postoffice; one story; basement and mezzanine; ground area; 3300 square feet; non-fireproof except first floor; stucco and stone facing; tile roof; drawings and specifications obtainable from custodian at site or at this office at discretion of supervising architect.

D. C., Washington.—Offices.—William Henry Walker has plans for office building to be occupied by bureau of Navy Department. (See "Bank and Offices.")

La., Pineville.—Hospital.—Louisiana State Hospital for Insane, Dr. John N. Thomas, superintendent, will receive bids until June 13 to erect two dormitory buildings; plans, specifications, etc., at offices of Dr. Thomas at Pineville and William Drago, architect, 512 Audubon Bldg., New Orleans, La. (Recently noted.)

Mo., Jefferson City.—Prison.—Board of Prison Inspectors will have plans prepared by H. H. Hohenschild, Rolla, Mo., and Harry Clymer, St. Louis, Mo., for cell building; fireproof; accommodations for 700 convicts; previous plans for cellhouse abandoned.

Mo., St. Louis.—Custom-house.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until June 16 for remodeling, etc. (except plumbing, gas piping, heating apparatus, electric conduits and wiring and elevator) of United States custom-house; drawings and specifications obtainable from custodian at site or at this office at discretion of supervising architect.

N. C., Greenville.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until July 11 for construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of United States postoffice; one story, with mezzanine at each end of basement; ground area of 4400 square feet; fireproof except roof; stone and stucco facing; tin roof; drawings and specifications obtainable at site or at this office at discretion of supervising architect.

N. C., Monroe.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., opened bids to erect postoffice; W. J. Brent Construction Co., Norfolk, Va., is lowest bidder at \$50,582 for limestone and \$51,282 for sandstone construction. (Recently noted.)

Okla., Oklahoma City.—Capitol.—Legislature created State Capitol Commission composed of William B. Anthony, Marlow, Okla.; Patrick Goulding, Enid, Okla., and Stephen A. Douglas, Ardmore, Okla., to erect capitol building; red granite foundation and basement; superstructure of gray granite; marble wainscoting and stairs; natural-gas heating and lighting. (Appropriation of \$750,000 recently noted.)

Tenn., Morristown.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., rejected all bids to erect postoffice, and will receive new bids until July 4. (Recently noted.)

Va., National Soldiers' Home.—Restaurant, etc.—Alexander Weston, Hampton, Va., lowest bidder at \$11,440 to repair old power plant, restaurant, store and postoffice.

HOTELS

Fla., Jacksonville.—American Securities Co. is reported as to erect hotel.

Fla., Miami.—R. L. and C. W. Hill will erect hotel at Avenue C and 12th St.; six stories; 120x50 feet; structural steel and concrete; capable of supporting additional stories; fireproof; two stories on lower floor.

Fla., Largo.—M. H. Reese, Pinellas Park, Fla., will, it is reported, erect hotel at Indian Rocks on the Gulf.

Fla., Miami.—Dave Afremow is reported as to erect commercial hotel at 10th St. and Avenue B; 100x100 feet; three stories; reinforced concrete; stores on lower floor.

Fla., St. Petersburg.—Detroit Hotel Co., C. N. Crawford, manager, rejected all bids to erect addition to hotel and will award contract to local contractor; construction to be under supervision of Archibald Aitchison, St. Petersburg; plans by Bonfoey & Elliott, Tampa, Fla., call for four-story structure; 60 rooms; 35 bathrooms; brick construction; four stores on ground floor; cost \$60,000. (Previously noted.)

Fla., Tampa.—Robert Mugge will expend \$60,000 to convert Mugge office building into hotel; 126 bedrooms; steam heat; elevators; fire escapes; stairway and elevator shafts enclosed with fireproof material; metal doors and wire glass in enclosure of shafts; fireproof partitions; metal window sashes.

Md., Deer Park.—Deer Park Hotel is reported as to expend \$8000 for improvements.

Mo., St. Louis.—Planters' Hotel, Lyman T. Hay, general manager, will install 100 bathrooms and decorate same. (Recently noted to expend \$15,000 for improvements to hotel.)

Okla., Duncan.—Duncan Chamber of Commerce, J. M. Browning, president, is promoting erection of 40-room hotel.

S. C., Darlington.—J. E. Norment is interested in organization of company to erect hotel; 50x75 rooms; fireproof; steam heat; electric lighting; electric elevator; cost \$50,000 to \$60,000; bids opened soon. (Chamber of Commerce recently noted promoting erection of hotel.)

Tenn., Etowah.—T. S. McKinny, Knoxville, Tenn., and associates will, it is reported, erect hotel at Tennessee Ave. and 7th St.; three stories; cost \$25,000.

Tenn., Trezavant.—W. L. Morris plans to rebuild burned Trezavant Hotel; two stories and basement; 20 rooms.

Tex., Brenham.—Anthony Hotel Co. is having plans prepared by J. M. Hyde, Box 214, Brenham, for hotel; 88 rooms; tile floors; marble stairway; high-speed electric elevator; steam heat; metal tile roof; metal ceiling; private bath for each room.

Tex., Dallas.—John N. Simpson is reported to erect hotel at Commerce and Austin Sts.; eight stories.

Tex., San Benito.—San Benito Hotel Co. incorporated with \$50,000 capital stock; J. F. Porter, president and treasurer; Claude F. Porter, vice-president; Samuel Spears, secretary.

Tex., Sisco.—Mr. Mobley, proprietor of Hartman House, will erect 40-room hotel.

Tex., Temple.—W. C. Martin, owner of Martin House, will erect annex to hotel; 60 rooms; cost \$30,000.

Tex., Temple.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., will not erect hotel, as recently reported.

Tex., Waco.—Walter G. Lacy has plans by George C. Burnett, Waco, for hotel 42x165 feet; brick; steam heat; electric lighting; elevator; gravel roof; bids opened May 30; contract for heating, plumbing and tile floors let separately.

Va., Fredericksburg.—Fredericksburg Hotel Co. organized with \$30,000 capital stock; R. Conroy Vance, president; M. B. Rowe, vice-president; A. L. Bulle, secretary; C. W. Jones, treasurer.

Va., Pocahontas.—H. W. Hicks, Charles Stump, John Roberts and others are having plans prepared by E. L. Shuffelbarger, Bluefield, W. Va., for hotel; 50x80 feet; four stories; fireproof; other details not determined; will receive bids through John Roberts at office of Sexton & Roberts, Pocahontas, until June 10; plans and specifications at office of Sexton & Roberts, Pocahontas, and architect at Bluefield, W. Va., or may be had on deposit of \$25. (Recently noted.)

MISCELLANEOUS

Ala., Decatur.—Hospital.—Ladies' Benevolent Society will erect hospital.

Ala., Montevallo.—Hospital.—William T. Warren, Birmingham, Ala., is preparing plans for hospital; three stories; 40x105 feet.

Ga., Savannah.—Shed.—Atlantic Compress Co. will erect cotton shed; 150x600 feet; capacity for several thousand bales; divided by firewall; cost \$10,000.

Ky., Louisville.—Shed.—Standard Sanitary Manufacturing Co. will erect one-story brick

enameling and storage shed at 6th St. and Shipp Ave.; 70x175 feet; cost \$19,000.

Miss., Jackson.—Fair.—Mississippi State Fair Association will erect grandstand, cattle and hog pens, addition to agricultural and other buildings, enlarge race track, etc.

Mo., St. Louis.—Restaurant, etc.—Augustin J. Cecardi and associates will erect building at Delmar and Melville Sts. to contain restaurant, cafe, etc.; Italian-Gothic style; two stories; cost \$40,000.

N. C., Crescent.—Home.—Nazareth Orphans' Home of Reformed Church in United States, J. T. Hedrick, chairman building committee, Lexington, N. C., has plans by H. E. Bonitz, Wilmington, N. C., for school, chapel and dormitory building; 43x100 feet; granite; gas lighting; probably slate roof; cost \$6000 to \$8000; date of opening bids not set. (Recently noted.)

N. C., Raleigh.—Stable.—Home Real Estate Co. will erect stable on S. Wilmington St.; frame; metal roof; 50x130 feet; cost \$3500.

N. C., Shelby.—Clubhouse, etc.—John A. Darwin, Athens, Ga., and W. Gardner Osgood of Morris county, New Jersey, it is reported, plan to erect clubhouse at Cleveland Springs; fireproof; 120 rooms; cost \$125,000 to \$150,000; also construct restaurant, stables, garage, conservatories, golf links, tennis courts, bowling alleys, lake, walks, driveways, etc.; plan development of residential park, construction of 50-foot boulevard from Shelby to Cleveland Springs, erection of bungalows, etc.

S. C., Greenville.—Stable.—G. J. Douglass will erect feed and sale stable on W. Coffee St.; cost \$3250.

Tenn., Clarksville.—Hospital.—Crestwood Hospital incorporated by Dr. Charles E. Diehl, John J. Conroy, S. L. Smith and others; has site on North 2d St. as location for hospital.

Tenn., Nashville.—Clubhouse.—Golf and Country Club, Harding Rd., will erect clubhouse; cost \$50,000; provide golf links, lake, tennis courts, etc.

Tex., San Antonio.—Hospital.—Southwestern Baptist Hospital Association has plans by Harry H. Hill, San Antonio, for hospital and sanitarium; five stories; fireproof; initial expenditure, \$250,000. (Previously noted.)

Va., Ocean View.—Town Hall.—Ocean View Improvement and Protective Association has plans by Arthur C. Freeman for town hall; two stories; frame; bell tower; 80x40 feet.

RAILWAY STATIONS, SHEDS, ETC.

Ark., Monticello.—St. Louis, Iron Mountain & Southern Railway, J. R. Stephens, chief engineer, St. Louis, Mo., will erect railway station.

La., Alexandria.—Alexandria & Western Railway Co., T. C. Lawless, president, purchased site for depot.

La., Baton Rouge.—Louisiana Railway & Navigation Co., William Edenborn, president, Hibernia Bank Bldg., New Orleans, La., will erect freight sheds.

La., Morgan City.—Southern Pacific Company, Hiram W. Sheridan, general superintendent of Louisiana lines, New Orleans, is considering erection of \$40,000 passenger and freight station.

Md., Baltimore.—Pennsylvania Railroad Co., A. C. Shand, chief engineer, Philadelphia, Pa., submitted proposition to Mayor James H. Preston and city officials for Northern Central Railway terminal improvements; to include warehouses, sheds, etc., exclusively for freight at Calvert Station, or erection of combination freight and passenger station, etc. (See "Railway Shops, Terminals, Roundhouses, etc.")

S. C., Spartanburg.—Greenville, Spartanburg & Anderson Railway Co., A. C. Lee, engineer maintenance of way, has plans by Hook & Rogers, Charlotte, N. C., for freight station; white and red pressed brick; red tile roof; plans and specifications being furnished contractors from Mr. Lee's office at Greenville, S. C. (Previously noted.)

S. C., Lake City.—Atlantic Coast Line Railway, E. B. Pleasants, chief engineer, Wilmington, N. C., will erect depot; brick construction.

Tenn., Nashville.—Nashville-Gallatin Interurban Railway Co. (H. H. Mayberry and associates) purchased, it is reported, four buildings on Union St. between First and Second Aves. for \$100,000 and will remodel for passenger and freight stations.

Tex., Dallas.—Northern Texas Traction Co. (controlled by Stone & Webster Engineering Corporation, Boston, Mass.) will soon erect terminal station at Jackson and Browder Sts.; nine stories; train sheds 200x270 feet; aggregate floor space 155,000 square feet; ex-

terior finish of terra-cotta and pressed brick; terrazzo flooring; three passenger elevators; train sheds of concrete platforms between main loading tracks, covered with light steel frame, supported on steel posts, with cement plastered roofs; vacuum cleaning devices, call bell, fire alarm systems, refrigerating plant, pumps to circulate ice water; independent heating plant, with auxiliaries in basement; also use basement as substation for electrical motor generators to distribute current to street cars, interurban cars using terminals and for lighting and power purposes in business district in connection with Edison underground system now being installed in city; L. C. Bradley, assistant district manager; estimated cost \$2,000,000. (Previously noted.)

Tex., Temple.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., will erect freight depot; two stories; brick; concrete loading platforms, transfer sheds, etc.

SCHOOLS

Ala., Birmingham.—Howard College plans to erect \$10,000 gymnasium; George D. Motley of Gadsden, Ala., is interested.

Ala., Mobile.—City plans election to vote on \$150,000 bond issue for school improvements; Harry T. Hartwell, school commissioner.

Ala., Mobile.—City plans election to vote on \$150,000 bond issue for school improvements; to include purchase of site at Broad and Augusta Sts. and erection of \$34,000 school; purchase of site on Old Shell Rd. and erection of \$15,330 school, erection of \$25,000 building to replace Raphael Semmes school, rebuilding of Barton Academy, etc.; Harry T. Hartwell, president of School Board.

D. C., Congress Heights, Station Washington.—Municipal architect prepared plans for enlargement of Congress Heights school; plans call for additional story to contain four rooms; \$33,000 available July 1. Address District Commissioners.

D. C., Washington.—House of Good Shepherd, 38th and Reservoir Sts., will repair school at 38th and Reservoir Sts.; cost \$4500.

D. C., Washington.—Mt. Vernon Seminary, Mrs. James H. Hensley, assistant principal, 11th and M Sts. N. W., will erect building on Nebraska Ave.

Fla., Buffalo Avenue (not a postoffice).—Board of Education of Hillsborough county, Tampa, Fla., approved plans by W. C. Biggers, Tampa, Fla., for \$15,000 school at Buffalo Ave. and \$5000 school at Hanna and Central Aves.; will vote June 17 on \$20,000 bond issue. (See Fla., Gary.)

Fla., Clearwater.—Sub-School District No. 2 will vote on \$10,000 bond issue to complete and equip school and pay indebtedness. Address District School Trustees.

Fla., Dunnellon.—Board of Public Instruction of Marion County has plans by Earl Mark, Jacksonville, Fla., for school; seating capacity, 300 to 500; practically fireproof; cost \$15,000.

Fla., East Tampa (not a postoffice).—Hillsborough County Board of Public Instruction, Tampa, Fla., ordered election for June 17 to vote on \$9000 bond issue to erect school in East Tampa school district recently noted; Marshall Moore, secretary. (See Fla., Gary.)

Fla., Gary.—Hillsborough County Board of Public Instruction, Tampa, Fla., ordered election for June 17 to vote on \$20,000 bond issue each to erect schools in Gary and Buffalo Avenue school districts, and \$6000 bond issue to erect school in East Tampa school district; Marshall Moore, secretary. (Recently noted.)

Fla., Lakeland.—Polk County Board of Education will hold election to vote on \$50,000 bond issue; \$27,500 to purchase site and erect school south of railroad, \$17,500 to erect addition to present school and \$5000 for negro school.

Fla., Ocala.—Board of Public Instruction of Marion County will expend \$50,000 to erect school; plans recently noted being prepared by Mark & Sheftall of Jacksonville, Fla.

Fla., St. Petersburg.—Pinellas County School Board plans election in Special School Tax District No. 3 to vote on \$65,000 bond issue for schools, to include \$44,000 for erection of ward schools and extension of St. Petersburg public schools.

Ga., Macon.—Bibb County Board of Education will expend \$5000 to repair Vineville School; Vineville Mothers' Club, appointed committee with Mrs. J. R. Harwell, chairman, to inaugurate campaign for new school to cost \$35,000.

Ga., Kite.—City voted \$3000 bond issue for school improvements. Address The Mayor.

Ky., Louisville.—St. Joseph's School is having plans prepared by Fred Erhart, Louisville, to remodel school at Washington and Adams Sts.; will receive bids until June 15 to erect new school building, install heating plant and remodel chapel.

La., Baton Rouge.—City voted \$20,000 bond issue for negro school; B. Swartz, City Engineer. (See "Roads and Streets.")

Md., Sudlersville.—Brinckloe & Canning, Easton, Md., prepared plans for proposed high school; fire rooms and basement; cost \$7000.

Miss., Collins.—Covington County Board of Education plans to establish agricultural high school.

Miss., Hickory.—City will issue \$10,000 of bonds to erect school. Address The Mayor.

Miss., Tupelo.—City has plans by Jones & Furbringer, Memphis, Tenn., for high-school building; two stories and basement; 100x70 feet; ordinary construction; hot-water heat; cost \$16,000; bids opened July 3; proposals may be addressed to C. E. Goodlett, Clerk. (Bond issue of \$25,000 recently noted voted.)

Mo., Carthage.—L. Hukill, secretary, states bond issue of \$25,000 was not voted by city, as recently stated.

Mo., Carl Junction.—Carl Junction Independent School District has plans by A. C. Michaelis, Joplin, Mo., for school building; 60x80 feet; two stories; brick and stone; steam heat; electric lighting; cost \$13,000; proposals may be addressed to C. W. Hone, clerk, Board of Directors. (Bond issue recently noted voted.)

Mo., Independence.—Board of Education, John W. Davis, secretary, opens bids in about six weeks to erect high school and two ward schools; former 78x120 feet; latter 75x76 feet; ordinary construction; indirect steam and hot-water heat; electric lighting; tile and gravel roof; cost \$40,000 and \$9000, respectively; plans by R. L. McBride, Independence. (Recently noted.)

Mo., Fulton.—Dr. W. S. Woods of Kansas City, Mo., authorized \$10,000 worth of improvements at William Woods College, including gas plant, storage plant, water plant and additional equipment for several departments.

Mo., Kansas City.—Kansas City School District voted \$1,750,000 bond issue for schools and \$250,000 bond issue for library building; Milton Moore, president Board of School Directors. (Recently noted.)

Mo., Pittsburg.—Board of Education approved plans for improvements to Forest Park school, including remodeling and erection of four additional rooms.

N. C., Andrews.—Andrews School District, J. W. King, chairman County Commissioners, will vote June 10 on \$15,000 bond issue to erect school.

N. C., Angier.—Angier School District voted \$15,000 school-building bonds; W. H. Gregory, secretary Board of Trustees. (Recently noted.)

N. C., Belew Creek.—Forsythe County Board of Education, W. B. Spease, superintendent of Schools, Winston-Salem, N. C., plans to erect schools. (See N. C., Bethania.)

N. C., Bethania.—Forsythe County Board of Education, W. B. Spease, superintendent of schools, Winston-Salem, N. C., plans to erect schools at Bethania, Louisville, Clemmons and Belew Creek.

N. C., Clemmons.—Forsythe County Board of Education, W. B. Spease, superintendent of schools, Winston-Salem, N. C., plans to erect schools. (See N. C., Bethania.)

N. C., Greensboro.—State Normal and Industrial College, J. I. Foust, president, plans to erect \$30,000 dormitory building and expend \$6000 to \$7000 to remodel building.

N. C., Hamlet.—Board of Education, S. O. Bauersfeld, secretary, will receive bids until June 9 to erect graded school; plans and specifications at office of Mr. Bauersfeld, Hamlet, and B. H. Stephens, architect, Wilmington, N. C., or may be had on deposit of \$10. (Recently noted.)

N. C., Henderson.—Trustees of Henderson Graded Schools accepted plans for high school; cost \$20,000.

N. C., Louisville.—Forsythe County Board of Education, W. B. Spease, superintendent of schools, Winston-Salem, N. C., plans to erect schools. (See N. C., Bethania.)

N. C., Pineville.—City opens bids June 9 to erect school building; ordinary construction; steam heat; electric lighting; Carver's roofing; cost \$14,500; plans by Louis H. Asbury, Realty Bldg., Charlotte, N. C.; proposals may be addressed to W. C. Barnett. (Recently noted.)

N. C., Raeford.—Raeford School District voted \$34,000 school bond issue. Address District School Trustees. (Previously voted.)

N. C., Rocky Mount.—City voted \$35,000 bond issue to erect school; W. L. Parrott, Mayor. (Recently noted.)

N. C., Wilmington.—New Hanover county voted \$175,000 bond issue to erect schools. Address County Commissioners. (Recently noted.)

N. C., Wilson.—City voted \$30,000 bond issue for school improvements. Address The Mayor. (Recently noted.)

S. C., Hartsville.—Darlington county, J. D. Coker, clerk Board of Trustees, R. F. D. No. 1, has plans by D. C. Barbot, Charleston, S. C., for industrial school for Antioch township recently noted; eight classrooms, basement and auditorium; ordinary construction; metal roof; cost \$8900 to \$10,000; bids opened May 20. (See "Machinery Wanted.")

Tenn., Richard City.—Marion County Commissioners, South Pittsburg, Tenn., have plans by Harry Huntington, Chattanooga, Tenn., for high school; two stories; reinforced concrete; paneled walls; hollow tile partitions and cross-walls; cost \$8000 to \$10,000.

Tenn., Church Hill.—Hawkins County High School Board, A. B. Rogan, chairman, and F. H. Parvin, secretary, Rogersville, Tenn., selected Church Hill and Eldson, Tenn., as locations for high schools. (Recently noted.)

Tenn., Eldson.—Hawkins County High School Board, A. B. Rogan, chairman, Rogersville, Tenn., selected Eldson and Church Hill, Tenn., as locations for high schools. (Recently noted.)

Tenn., Huntingdon.—City will vote July 2 on \$10,000 bond issue, including \$5000 to rebuild dormitory for Industrial and Training School. Address The Mayor.

Tenn., Johnson City.—City selected D. R. Buson as supervising architect in charge of construction of \$50,000 high school.

Tex., Antioch.—Antioch School District of Hoke county voted \$10,000 bond issue for schools. Address District School Trustees.

Tex., Bishop.—Bishop Independent school district voted \$75,000 bond issue to erect Central High and three district school buildings; has plans by W. J. Ehlers. (Previously noted.)

Tex., Decatur.—Decatur Independent School District voted \$27,000 bond issue to erect school. Address District School Trustees. (Recently noted.)

Tex., De Soto, R. F. D. from Cedar Hill.—De Soto School District will issue \$8500 of bonds and erect brick school; Thomas E. Henry, superintendent of schools, Dallas, Texas.

Tex., Duncanville.—Duncanville Independent School District, T. A. Sliger, president, will expend \$10,000 to erect building recently noted; 60x80 feet; mill construction; brick; heating and lighting not decided; composition roof; plans by A. A. Brown, 501 Sumpter Bldg., Dallas, Tex.; bids opened June 9. (See "Machinery Wanted.")

Tex., Eddy.—Eddy Independent School District, W. F. Hall, secretary of board, will expend \$20,000 to erect school; architect not selected. (Recently noted.)

Tex., Graham.—School Board, J. T. Rickman, president, receives bids until June 5 to erect addition to school; plans and specifications at offices of Mr. Rickman, Graham, and Lang & Wittich, architects, Dallas, Tex., or may be had on deposit of \$15.

Tex., Hallsville.—Hallsville School District voted \$8000 bond issue to erect school. Address District School Trustees.

Tex., Ore City.—Ore City Independent School District will vote June 21 on \$3000 bond issue to erect two-story school. Address District School Trustees.

Tex., Pattonville.—Pattonville School District voted \$3000 school bond issue. Address District School Trustees.

Tex., Terrell.—School Board will erect six-room primary school.

Va., Centerville.—School Board of North River District will receive bids until June 7 through J. M. H. Randolph, clerk, Parnassus, Va., to erect four-room school.

Va., Lynchburg.—Rev. Robert C. Jett is reported as interested in erection of school for Protestant Episcopal Church; purchased 40-acre site five miles from Lynchburg.

Va., Norfolk.—Finance and Public Improvement committees of City Council recommended appropriation of \$54,700 to erect schools in Berkeley and Lambert's Point.

Va., Norfolk.—Local Board of Park Place Ward, J. D. Hank, secretary, invites bids until June 9 to erect 10-classroom annex to James Monroe school building; 36x198 feet; two stories and basement; ordinary brick

walls; steam or hot-air ventilating system of heat; slate roof; complete (except heating and ventilation) in accordance with drawings and specifications by Lee & Diehl, 408 Seaboard Bank Bldg., Norfolk.

Va., Norfolk.—Tanners Creek District School Board of Norfolk county will erect school in Douglas Park; bids received through A. H. Foreman, division superintendent, 57 Chamberlaine Bldg., Norfolk, until June 4; one-story; four classrooms; brick; plans and specifications at office of Lee & Diehl, architects, 408 Seaboard Bank Bldg., Norfolk, or may be had on deposit of \$15.

Va., Richmond.—City School Board plans to erect addition to Bainbridge School, 14th and Bainbridge Sts.; cost \$40,000.

W. Va., New Haven.—Board of Education defeated bond issue for school building; S. T. Rickard, secretary. (Recently noted.)

W. Va., Elkins.—Elkins Independent school district voted \$30,000 bond issue to erect high school; Blain W. Taylor, president Board of Education.

W. Va., Warwood.—Board of Education of Richland District acquired site to erect high-school building.

W. Va., Wheeling.—Washington County District Board of Education of Ohio County defeated \$15,000 bond issue to erect school. Address District School Trustees. (Recently noted.)

STORES

Ala., Birmingham.—Louis Pizitz will expend \$15,000 to remodel store; plans not definite. (Recently noted.)

D. C., Washington.—National Union, Bond Bldg., is having plans prepared for store and lodge building. (See "Association and Fraternal.")

Fla., Daytona.—Mrs. F. M. Mason has plans by S. H. Gove for business building.

Fla., Jacksonville.—Lavinia Schell will erect two-story brick building on Davis St.; cost \$4000.

Fla., Jacksonville.—Frank McDerrott will erect two-story building on Laura St.; cost \$3500.

Fla., Miami.—R. L. and C. W. Hill will erect hotel and store building. (See "Hotels.")

Fla., Miami.—Dave Afremow is reported as to erect store and hotel building. (See "Hotels.")

Fla., St. Petersburg.—Detroit Hotel Co., C. N. Crawford, manager, rejected all bids to erect addition to hotel. (See "Hotels.")

Fla., Tampa.—Paul H. Herndon will erect store on Seventh Ave.; cost \$2000.

La., De Ridder.—Frank Smith will erect two-story brick building.

La., New Orleans.—Mrs. Mary Maloney will erect two-story store and residence at St. Claude and Spain Sts.

La., New Orleans.—Fred Leltz will erect two-story building in square bounded by Tchoupitoulas, Phillip and Rousseau Sts. and Jackson Ave.; cost \$2500.

La., New Orleans.—Charles Dietzman will erect addition to and repair building at Grand Route St. John; cost \$4000.

Miss., Biloxi.—A. L. Hahn will erect store and office building; brick.

Miss., Biloxi.—Sea Food Co., H. E. Gumbel, president, New Orleans, La., will erect building; 25x50 feet.

Miss., Louisville.—J. B. Parks, proprietors of Central Hotel on Main St., will erect four or five store buildings.

Miss., Louisville.—J. D. McGraw plans to erect business building.

Miss., Louisville.—Dr. W. G. Dempsey and Dr. Parkes are considering erection of two-story brick building to replace burned structures.

Mo., Kansas City.—Kansas City Heating Co., 1308 Baltimore Ave., will, it is reported, erect building at 1308 Wyandotte St. to cost \$100,000.

Mo., St. Louis.—Avon Realty Co. will erect two-story stores at 215-23 S. Euclid St.; cost \$12,500.

Mo., St. Louis.—F. Bates will erect building at 419 N. 6th St.; three stories; cost \$10,000.

Mo., St. Louis.—Anna McDonald will erect two-story store building at 5927 S. Broadway.

Mo., St. Louis.—M. Relchert will erect two-story store building at 5876 Delmar Blvd.; cost \$6000.

Mo., St. Louis.—C. Kirschbaum will erect two-story store at 819-21 N. 8th St.; cost \$4500.

Mo., St. Louis.—Ackerman & Michaels will

erect two-story store building at 804 N. 6th St.; cost \$5900.

N. C., Wilmington.—H. W. Konig, 901 4th St., has plans by Henry Bonitz of Wilmington for store and apartment-house; to contain three stores; brick; cost \$11,000.

N. C., Winston-Salem.—Ex-Judge Starbuck, administrator for Agurs estate, will erect business building on Liberty St.; two stories; 45x120 feet; mill construction; plate-glass front; tiled floor entrance; plans by Willard C. Northrup.

S. C., Columbia.—Lion Furniture Co. is having plans prepared by George E. Lafaye, Columbia, for store building; four or five stories; pressed brick and terra-cotta; 21x81 feet; front and sides of two lower stories glass; concrete floor in basement; elevators; exterior walls of pressed brick and terra-cotta; steam-heating plant; vacuum cleaning equipment; sprinkler system; cost \$30,000.

S. C., Greenville.—W. M. Jordan and F. H. and J. G. Cunningham will erect two-story brick building on W. Washington St.; 20x90 feet; cost \$4100.

Tenn., Nashville.—John Thudley will expend \$3500 to repair building at Eighth Ave. and Central St.

Tex., Chilton.—Biddle, Galtner & Speer will erect five one-story brick buildings; 25x70 feet; cost \$19,000. (Recently noted.)

Tex., Crockett.—M. Bromberg, Sr., will erect pressed brick business building.

Tex., Dallas.—R. Jackson will erect two-story brick building at 229 Bryan St.; cost \$9000.

Tex., El Paso.—A. W. Bittick contemplates erection of business building; eight stories; brick and concrete.

Tex., Gatesville.—Roy E. Lane, architect, Waco, Tex., receives bids until June 5 to erect store and office building for J. R. Brown. (See "Churches.")

Tex., Port Arthur.—Merchants State Bank has plans for bank and store building. (See "Bank and Office Buildings.")

Tex., Sulphur Springs.—Seaman-East Grocery Co., Greenville, Tex., will erect brick building on Depot St.

Tex., Temple.—R. B. Stephens will erect two-story brick business building on 2d St. near Central Ave.

Tex., Yoakum.—W. L. Burton has plans by J. Henry Yentzen, Box 468, Yoakum, for store building; two stories; brick.

Tex., Yoakum.—C. & R. Neumann will erect building; two stories and basement; brick; blue Hoosier Bedford stone and Llano gray granite; bids opened June 2; separate bids received for electric-light wiring, plumbing and heating; plans at office of J. Henry Yentzen, Box 468, Yoakum. (Recently noted.)

Va., Richmond.—C. Ridgeway Moore will erect store building on Grace St. between 5th and 6th Sts.; cost about \$100,000.

Va., Norfolk.—Arcadian Realty Corporation, controlled by George Christopoulos and George Karanicholas, purchased site on Granby St. and will, it is reported, erect commercial building.

Va., Roanoke.—J. E. McGuire opens bids about June 6 to erect store and warehouse for Farmers' Supply Co. (See "Warehouses.")

W. Va., Charleston.—A. H. Boyd opens bids July 1 to erect store and office building. (See "Bank and Office.")

W. Va., Moundsville.—C. G. and W. T. Hughes will probably rebuild Gospel Trumpet building reported burned at loss of \$10,000.

THEATERS

Ky., Lancaster.—Alexander Walker will erect theater; plans not determined.

WAREHOUSES

Ky., Flemingsburg.—R. W. Darnell, Scott Glasecock and M. M. Rhodes will erect loose-leaf tobacco warehouse at cost of \$20,000; will equip with scales, presses, elevators, etc.

Md., Baltimore.—Pennsylvania Railroad Co., A. C. Shand, chief engineer, Philadelphia, Pa., submitted proposition to Mayor James H. Preston and city officials for Northern Central Railway terminal improvements; to include erection of warehouses, etc. (See "Railway Shops, Terminals, Roundhouses, etc.")

Mo., St. Louis.—Barnhart Mercantile Co. and Randolph Realty Co. will erect two five-story warehouses at 206-210 Ledee; cost \$18,000.

Tenn., Memphis.—Company is being organized with W. F. Blessing president, Frank

H. Johnson vice-president, W. V. Carlton secretary-treasurer; considering sites for warehouse.

Va., Roanoke.—J. E. McGuire opens bids about June 6, through Bates & Hutchinson, architects, Roanoke, to erect store and ware-

house for Farmers' Supply Co.; 50x200 feet and 70x90 feet; area, 16,300 square feet; five stories; fireproof; low-pressure steam or vapor heat; one or more electric freight elevators; built-up roofing; cost \$100,000. (Recently noted.)

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

N. C., Southern Pines.—L. A. Gould, Brooklyn, N. Y., awarded contract to J. J. Stroud, Southern Pines, to erect apartment-house; cost \$9000; plans by Walter Flower.

Tex., El Paso.—W. B. Watson awarded contract to O. P. Kroeger Company, El Paso, to erect apartment-house on W. Boulevard; two stories and finished basement.

Va., Norfolk.—W. P. Cousins awarded contract to C. C. Barclay to erect brick apartment-house on 19th St. near Llewellyn Ave.; cost \$4250.

ASSOCIATION AND FRATERNAL

Tex., Abilene.—Abilene Lodge No. 562, Benevolent Protective Order of Elks, awarded contract to R. C. Lewis to erect lodge building; two stories and basement; 50x70 feet; brick; terra-cotta trimmings; tile cornice and roof; cost \$15,000. (Recently noted.)

BANK AND OFFICE

Ark., Pottsville.—Pottsville Bank awarded contract to C. B. Wilson, Atkins, Ark., to erect bank building; 25x40 feet; one story; fireproof; galvanized iron roof; cost \$18,000; materials purchased.

D. C., Washington.—Real Estate Trust Co. awarded contract at \$181,000 to John Nolan, 1413 G St. N. W., Washington, for superstructure for bank and office building; plans by Milburn, Heister & Co., Union National Bank Bldg., Washington; steel contract recently noted awarded to Barber & Ross, 614 11th St. N. W., Washington.

Fla., Bartow.—Polk county National Bank awarded contract to Franz Safe & Lock Co., 27 S. Hogan St., Jacksonville, Fla., at \$15,000 for steel-lined vaults, burglar-proof money chests, deposit boxes, etc.; general contract to remodel banking-room, make extension and building brick work for vaults recently noted awarded to George W. Muller Bank Fixture Co., Atlanta, Ga.

Fla., Tampa.—Tampa Electric Co. awarded contract to G. A. Miller, Tampa, to erect office building; 55x90 feet; fireproof construction; electric heating and lighting; tar and gravel roof; cost \$25,000; plans by Francis J. Kennard, Tampa; materials purchased. (Recently noted.)

N. C., Charlotte.—Mrs. O. D. King, Alhambra, N. C., awarded contract to Blythe & Isenhour, Charlotte, to remodel bank building to be occupied by Southern Real Estate, Loan & Trust Co.; 22x52 feet; ordinary construction; steam heat; electric lights; metal roof; cost about \$7000; plans by Louis H. Asbury, Charlotte. (Recently noted.)

Tenn., Camden.—First National Bank awarded contract to Mitchell-Moore Concrete Co., Nashville, Tenn., to erect bank building; two stories and basement; concrete.

CHURCHES

Ala., Linden.—Linden Baptist Church awarded contract to erect brick building; cost \$9000.

S. C., Columbia.—St. Timothy Protestant Episcopal Church, Rev. Wilmer S. Poyner, rector, awarded contract to W. B. Summerett, Columbia, to erect building at Calhoun and Lincoln Sts.; granite; interior walls faced with gray-toned brick; green slate roof; plans by Hamby & Bourke, Columbia.

Tex., Abilene.—Ministerial Association awarded contract to Jesse Rice to erect tabernacle; seating capacity 3500.

CITY AND COUNTY

Miss., Clarksdale.—Library.—City awarded contract to J. A. Anderson to erect Carnegie Library; 40x40 feet; cost \$12,000.

DWELLINGS

Ala., Birmingham.—Miller Bros. have contract to erect one-story frame residence at Eastlake; plans by Ben Price, Birmingham.

Ala., Birmingham.—Hillman Watts Land Co. awarded contract to erect seven one-story dwellings, 28x49 feet; two, 28x24 feet; one, 14x40 feet, and one two-story store building, 24x45 feet; grates; electric lighting; composition roof; ordinary construction; cost \$7500.

Ala., Birmingham.—G. E. Hart awarded contract to W. F. Traynham to erect two-story frame dwelling; cost \$3000.

Ala., Birmingham.—H. K. Milner, 1107 Empire Bldg., will expend \$7500 to erect dwelling; frame, stone veneer and stucco; plans by W. T. Warren, 16th floor Empire Bldg., Birmingham; contract recently noted awarded to T. L. Medders & Co.

Ala., Gadsden.—R. W. Kirby, Gadsden, has contract to erect several dwellings, including six-room residence, for Carl Lonnergan.

Ala., Eutaw.—Mrs. John D. Steele awarded contract to Joe Knight & Bros. to erect dwelling; two stories; frame; cost \$4000; plans by W. E. Bennis, Bessemer, Ala. (Recently noted.)

D. C., Washington.—J. M. Bird, 1330 Pennsylvania Ave. S. E., awarded contract to William T. Harper to erect dwelling at 4183 Yuma St. N. W.; cost \$6000.

D. C., Washington.—F. J. Helder, 5107 Wisconsin Ave. N. W., awarded contract to F. F. Robey to erect dwelling at 4215 Garrison St. N. W.; cost \$4500; plans by W. W. Chapell.

D. C., Washington.—Protestant Episcopal Church awarded contract to George A. Fuller Company, Munsey Bldg., Washington, to erect dwelling on Wisconsin Ave. north of Massachusetts Ave.; cost \$51,000; plans by Henry Vaughan.

Fla., Tampa.—V. A. Davis, 341 Bay St., awarded contract to Parrish & Goin, Tampa, to erect dwelling; seven rooms; two stories; frame; asbestos shingle or composition roof; cost \$4000; plans by Francis J. Kennard, Tampa. (Recently noted.)

Ga., Atlanta.—Anna and Ethel Hunt will erect two-story frame dwelling at 38-40 Peachtree St.; cost \$5000; awarded contract to C. E. Miller.

Ga., Atlanta.—Dr. Theo. Toepel awarded contract to T. C. & Paul Wesley, Atlanta, to erect one-story frame dwelling at 44 Seminole St.; cost \$4200.

Ga., Atlanta.—Stuart R. Crawford, 240 Courtland St., has plans by and awarded contract to Mackie-Crawford Construction Co., Atlanta, to erect dwelling; two stories and basement; brick and timber; steam heat; red tile roof; cost \$9000. (Recently noted.)

Ky., Shelbyville.—Charles W. Guthrie will expend \$6000 to erect dwelling; 46x50 feet; brick veneer; tile roof; hot-water heat; electric lighting; plans by J. J. Gaffney, Louisville, Ky.; contract recently noted awarded to Gruber & Doss, Shelbyville. (See "Machinery Wanted.")

La., New Orleans.—Homeseekers' Building and Loan Association awarded contract to erect double two-story residence on Palmyra St.

La., New Orleans.—Aaron Levy awarded contract to erect two-story stucco residence on City Park Ave.

La., New Orleans.—Dryades Building and Loan Association awarded contract to erect two-story residence at Marengo and Robertson Sts.

La., New Orleans.—Mrs. Raymond Scudder awarded contract to erect two-story residence at 9 Richmond Pl.

La., New Orleans.—Michael O'Connor awarded contract to erect two-story residence on Ursuline St.

La., New Orleans.—C. H. Bailey, Jr., 3721 N. Rampart St., awarded contract to A. L. Smith, 4227 Palmyra St., New Orleans, to erect proposed dwelling; 32x49 feet; frame; grates; gas and electric lighting; cost \$4000; plans by R. Sidney Hernandez.

Md., Baltimore.—John Dietsch & Son, 1409 W. Baltimore St., awarded contract to erect store and dwelling. (See "Stores.")

Miss., Cleveland.—Mrs. J. B. Bond awarded contract to erect dwelling; cost \$7000; plans by Weathers-Foley Company, Memphis, Tenn. (Recently noted.)

Miss., Houma.—Donald Palmer, Joe Sheffner, George Peats and J. Taschner awarded contracts to George Ingram, Paducah, Ky., to erect residences.

N. C., Concord.—C. M. Ivey awarded contract to F. C. Niblock to erect residence on S. Union St.; two stories; eight rooms.

N. C., Raleigh.—Henry Honeycutt awarded

contract to W. H. Nordan, Raleigh, to erect dwelling at Lane and Elm Sts.; two stories; frame; slate roof; seven rooms; cost \$3000.

Tenn., Memphis.—J. A. Minga awarded contract to Thomas James to erect residence at 95 N. Evergreen St.; cost \$4000.

Tenn., Memphis.—O. K. Stenaver (not O. K. Stewart as recently reported), 93 S. Main St., awarded contract to J. B. Butler to erect residence; 32x60 feet; frame and stucco; hot-water heat; shingle roof; plans by W. E. Schmidt & Co., 151 Madison Ave., Memphis.

Tenn., Nashville.—Thomas W. Wrenne awarded contract to W. P. Remy, Nashville, to erect brick dwelling; two stories; 10 rooms, basement and attic; hot-water heat and grates; electric lighting; cost \$12,000; plans by Robert Sharp, Cole Bldg., Nashville. (Recently noted under "Stores.")

Tenn., Smyrna.—T. E. Hibbett awarded contract to F. S. Jones to erect \$6500 brick residence; plans by S. M. McMurray, Nashville, Tenn.

Tex., Edna.—E. T. Rose, H. O. Taylor, Dr. F. W. Simons, George F. Boyles, Jr., and Miss Jennie Boyle awarded contracts to erect dwellings; cost from \$1200 to \$5000 each.

Tex., El Paso.—George W. Cameron awarded contract to Mayfield Building & Improvement Co., El Paso, to erect bungalow; red pressed brick; bluestone trimmings.

Tex., El Paso.—Charles Davis awarded contract to Mayfield Building & Improvement Co., El Paso, to erect residence at W. Rio Grande St. and Boulevard; two stories; two bathrooms; Spanish Mission type; will erect garage in connection.

Tex., El Paso.—Mrs. Emma Lashley awarded contract to Mayfield Building & Improvement Co., El Paso, to erect bungalow; five rooms; brick.

Tex., El Paso.—Albert Steinwachs awarded contract to Mayfield Building & Improvement Co., El Paso, to erect bungalow; five rooms and basement; hot-water heat.

Tex., San Antonio.—J. B. McFarland, 613 Gunther Bldg., awarded contract to Mr. Gunderman, 1230 Virginia Blvd., San Antonio, to erect cottage; six rooms; ordinary construction; shingle roof; cost \$5000; F. B. Gaenslen, San Antonio. (Recently reported burned.)

Tex., Sulphur Springs.—W. M. Walker awarded contract to erect two-story residence on Davis St.

Va., Lynchburg.—George H. Cosby will erect frame and stucco residence on Rivermont Ave.; cost \$6000; 10 rooms; ordinary construction; steam heat; plans by McLaughlin & Johnson of Lynchburg; contract awarded to Hamilton Bros., Lynchburg.

Va., Norfolk.—George Hogan awarded contract to J. H. Pierce & Son, Norfolk, to erect residence at Blow and 12th Sts.; two stories and basement; English style; exterior, tapestry brick; cost \$15,000; plans by Neff & Thompson, Norfolk.

Va., Richmond.—Eugene McWallace awarded contract to W. H. Crawford, Richmond, to erect two-story brick dwelling on Boulevard near Cary St.; cost \$7543.

Va., Richmond.—T. R. Scott and William Chiles, Jr., awarded contract to W. C. Scott, Richmond, to erect two two-story brick dwellings at 624-26 N. 9th St.; cost \$3950; plans by E. R. Wright, Richmond.

W. Va., Beckley.—George W. Bear will expend \$13,000 to erect dwelling; stone, concrete, steel and brick; contract recently noted awarded to Moore Bros., Beckley, W. Va. (See "Machinery Wanted.")

W. Va., Martinsburg.—Tuscarora Realty Co. awarded contract to B. M. DeHaven, Martinsburg, to erect eight or ten six-room dwellings.

GOVERNMENT AND STATE

N. C., Raleigh.—Administration.—State Building Commission, Ashley Horne, chairman, awarded contract at \$38,815 to General Furnishing Co., Youngstown, O., for equipment of administration building, including metal cases and desks and other furniture, and to D. S. Hess & Co., New York, for painting, decorating and draperies. (Previously noted.)

Tex., Cotulla.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., awarded contract to T. R. Keck to erect and equip postoffice building.

HOTELS

Ark., Hope.—A. W. H. Schmiker awarded contract to erect brick hotel building.

La., Shreveport.—Inn Hotel awarded contract to W. H. Werner to erect addition to hotel; 24 rooms; cost \$45,000.

N. C., Charlotte.—Mutual Trust Co. awarded contract to R. L. Goode, Charlotte, to erect hotel; four stories; steel construction; marble trimmings exterior and interior; tile and terrazzo floors; pressed brick; Carey's and tile roof; steam heat; elevator; cost \$30,000; plans by Hunter & Gordon, Charlotte. (Recently noted.)

N. C., Durham.—W. J. Christian and J. B. Warren awarded contract to erect building; two upper floors probably for hotel. (See "Stores.")

W. Va., Piedmont.—Amos Roby will expend \$4000 to erect addition to hotel; 38x90 feet; mill construction; steam heat; electric lighting; slate and composition roof; plans by Calvin Kepplinger, Piedmont; contract awarded to Harry G. Smith of Piedmont. (Recently noted at Keyser, W. Va.)

MISCELLANEOUS

Md., Cumberland.—Hospital.—Allegany County Sanitarium awarded contract to Wright-Richardson Company, Cumberland, to erect tuberculosis hospital according to plans by George Sansbury; length 136 feet; central portion 36x18 1/4 feet; wings 50x8 feet; nine-foot porch; pine floors and siding, hemlock framing and two-ply rubber roof. (Alice McMichael and others previously noted as interested in erection of tuberculosis hospital.)

SCHOOLS

Md., Baltimore.—Mayor and City Council awarded contract to John K. McIver, 7 Clay St., Baltimore, at \$103,977 to erect addition to No. 83 school at Lakewood and Philadelphia Aves.; 71x142 feet; three stories and basement; fireproof and ordinary construction; low-pressure steam heat; electric lighting; ash lift; slag roof; vacuum cleaning plant; plans by Haskell & Barnes, 301 N. Charles St., Baltimore. (Recently noted.)

Miss., Indianola.—City awarded contract to erect two-story and basement school building. Address The Mayor.

Miss., Natchez.—Trustees of Union Schools awarded contract to R. E. Bost to erect school for negroes; two stories; brick.

S. C., Due West.—Woman's College awarded contract to Jordan-Munn Construction Co., Greenville, S. C., to erect conservatory of music; two stories; seating capacity 1400; 96x83 feet; ordinary construction; steam heat; electric lighting; metal roof; cost \$25,000; plans by Hook & Rogers, Charlotte, North Carolina.

Tenn., Childress.—City awarded contract to erect school; 12 rooms and auditorium; seating capacity 500; cost \$30,000. Address The Mayor.

Tex., San Antonio.—School District No. 40 of Bexar county awarded contract to McNeill & Gallant to erect school; two stories and basement; eight rooms and auditorium; fireproof construction; ventilating and heating system; electric lighting; gravel roof; cost \$18,000; plans by Henry T. Phelps, San Antonio. (Bond issue of \$3,000 recently noted voted for district school building.)

Tex., Waco.—Board of Trustees awarded contract to B. F. Baker, Waco, to erect ward school; two stories and basement; 11 classrooms; slow burning construction; Molin system of steam heat; electric lighting; composition roof; cost \$44,000; plans by T. Brooks Pearson, Waco. (Recently noted.)

Tex., Wichita Falls.—City awarded contract to erect school; three stories; 12 rooms; brick; 63x85 feet; cost \$30,000; plans by Pate & Von der Lippe, Wichita Falls. (Recently noted.)

Va., Cluster Springs.—Hampden Wilson will award contract to R. D. Merritt, South Boston, Va., to rebuild Cluster Springs Academy; schoolhouse 42x60 feet; three stories; two cottages for dormitories; eight rooms each; two stories; ordinary frame construction; steam heat; acetylene gas lighting; tin roof; cost \$8000. (See "Machinery Wanted.")

Va., Charlottesville.—University of Virginia awarded contract to Vandergrift & Fitch, Charlottesville, to erect entrance building; Greek colonial style; brick; slate roof; will contain five stores; cost \$20,000; plans by Eugene Bradbury, Charlottesville; will also construct roadway in front.

Va., Staunton.—City awarded contract to G. W. Fretwell, Staunton, to erect Main St. school; cost about \$15,000; plans by T. J. Collins & Sons, Staunton. (Recently noted.)

STORES

Ala., Birmingham.—Hillman-Watts Land Co. awarded contract to erect store. (See "Dwellings.")

Ala., Birmingham.—John S. Gallispie

awarded contract to A. M. Tharp to erect building at 20th St. and Twelfth Ave.; two stories; brick-veneer; cost \$11,500.

Ala., Bolling.—P. B. Minor, Eutaw, Ala., awarded contract to Standard Construction Co., Meridian, Miss., to erect mercantile building; 60x75 feet; brick; pitch and gravel roof; plans by W. E. Bennis, Bessemer, Ala.

D. C., Washington.—A. Behrend awarded contract to R. B. Behrend, Columbia Bldg., Washington, to erect business building at 633 35 H St. N. W.; cost \$10,000; plans by Julius Germueller, 456 Louisiana Ave. N. W., Washington.

Fla., Orlando.—Joseph Guernsey will erect business building on E. Church St.; two stories; buff brick; 36x50 feet; ordinary construction; composition roof; cost \$5000; plans by Murray S. King of Orlando; contract awarded Hanner Bros. of Orlando.

La., New Orleans.—W. P. Burke awarded contract to Jefferson Construction Co., 204 Perrin Bldg., New Orleans, to repair store; three stories; ordinary construction; electric elevator; slate roof; cost \$15,000; plans by Toledano & Wogan, New Orleans; materials purchased.

Md., Baltimore.—John Dietsch & Son, 1409 W. Baltimore St., will erect store and dwelling at Baltimore St. and Arlington Ave.; three stories; brick; ornamental brick front; one plate-glass window, 16.3x75.9 feet; cost \$6000; awarded contract to Monmonier & Sorrell, 1711 McCulloh St., Baltimore; plans by Henry J. Tinley, 312 N. Charles St., Baltimore.

N. C., Durham.—W. J. Christian and J. B. Warren awarded contract to T. S. Christian, Durham, to erect brick building; three stories; lower floor for store; upper floors probably for hotel; cost \$20,000.

N. C., Winston-Salem.—B. J. Sheppard awarded contract to P. L. Miller, Winston-Salem, to erect store building on Chestnut St.; one story; six rooms; brick; slag roof; city water and sewer construction; electric lights; cost \$5000; materials purchased.

Okla., Antlers.—J. T. Moon awarded contract to erect two-story brick building to cost \$3300.

Okla., Oklahoma City.—Joe Maystreck awarded contract to W. M. Newbourn to erect building; one story; brick.

Tex., Cuero.—Mrs. Mary R. Kleinecke is receiving bids through Kleuser & Whitkey, architects, Cuero, for erection of two-story building.

Tex., Dallas.—Charles C. Cobb, North Texas Bldg., awarded contract to H. J. Curtis, Dallas, on percentage basis to erect mercantile building; 94x90 feet; two stories and basement; ordinary construction; hot-water heat; electric lighting; electric elevator; composition roof; cost \$35,000 to \$40,000; plans by C. D. Hill & Co., Dallas. (Recently noted.)

Tex., Edna.—Mrs. W. Young awarded contract to Zuber & Hill, El Campo, Tex., to erect three brick buildings; cost \$10,000; 63x75 feet; steel ceiling; electric wiring; Barrett specification roof; plans by J. E. Large, Bay City, Tex.

Tex., Cameron.—Fritz Fahrengorff awarded contract to erect brick business building.

Tex., Dallas.—Dallas Dry Goods Co. awarded contract to McCavick Construction Co., Dallas, to erect building; 10 stories; reinforced concrete; concrete foundation and roof; pneumatic tube system; fire escapes; automatic sprinkler system; cost about \$300,000; plans by Brickey & Brickey, Praetorian Bldg., Dallas. (Previously noted.)

Tex., Lockhart.—Jeff Howard and B. F. Dodd awarded contracts to erect two brick business buildings.

Tex., San Antonio.—Dobrowski & Conrad, 219 St. Mary St., awarded contract to August Fussell to erect one two-story brick store with carrying capacity for two additional stories; cement floors; glass front and gravel roof. (Recently noted to cost \$4000.)

Tex., Yoakum.—W. H. Opet awarded contract to erect two one-story brick store buildings.

Va., Charlottesville.—University of Virginia awarded contract to erect entrance building to contain five stores. (See "Schools.")

W. Va., Mabscott.—Moore Bros., Beckley, W. Va., have contract to erect Ruffner Bldg.; three stories; stone, concrete, steel and brick. (Recently noted.)

THEATERS

Ala., Birmingham.—Louis V. Clark and associates awarded contract to J. W. Atkinson & Co., Birmingham, to complete Lyric

Theater at Third Ave. and 18th St. (Previously noted.)

Tenn., Jackson.—McKnight & Mera, Memphis, Tenn., are reported to have contract to erect theater; seating capacity 1700; concrete and brick; fireproof; cost \$50,000; plans by R. A. Heavener, Jackson.

WAREHOUSES

Ga., Augusta.—Clark Milling Co. will erect warehouse on McKinnis St.; brick; 45x70 feet; ordinary construction; composition roof; cost \$5000; contract awarded to T. O. Brown & Son.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Benson.—The Dixie Railway is being built by the Dixie Industrial Co. of Benson from there to Alexander City, 15 miles, through rolling country. O. J. Pruitt & Co. of Montgomery, Ala., is the contractor. Wm. E. Benson is president and general manager, C. H. Kelsey vice-president and treasurer, T. L. Strother secretary and treasurer, and D. B. McKenzie chief engineer at Benson.

Ark., Dardanelle.—Col. Henry Stroup, Paris, Ark., president of the Fort Smith, Subaco & Eastern Railway, is reported saying that construction of an extension to Dardanelle will begin July 1.

Ark., De Queen.—An official of the De Queen & Eastern Railway is quoted saying that the company is considering a plan to build a line 25 miles long from De Queen, Ark., to Broken Bow, Okla., to connect with the Texas, Oklahoma & Eastern Railway, which it owns; also that the projected extension from Dierks, Ark., to Hot Springs, about 70 miles, will probably be constructed next year. E. S. Byington, Broken Bow, Okla., is chief engineer; Herman Dierks, Kansas City, Mo., is general manager.

Ark., Harrisburg.—The Tachudy Lumber Co., Memphis, Tenn., denies the recent press report that it would build a railroad six miles long, saying that its line is completed.

Ark., Little Rock.—The Little Rock, Pine Bluff & Eastern Traction Co. proposes to build from Little Rock via England to Pine Bluff, Ark., 51 miles. Route level. Is perfecting franchises and details. Not ready to announce date for construction bids. C. C. Kavanaugh is president, E. W. Jackson vice-president and general manager and chief engineer; Jas. W. McHaffy is secretary and treasurer.

Fla., Jacksonville.—George A. Latham is reported to have sold to the American Securities Co., trustee, property on Big and Little Talbot islands, on which will be constructed an interurban railroad and other improvements.

Fla., St. Augustine.—T. R. Osmond, general manager, and a corps of engineers, says a local report, have begun survey for the interurban electric railway projected by the Jacksonville & St. Augustine Public Service Corporation from St. Augustine to Jacksonville, about 40 miles. A. W. Corbett of St. Augustine is president; Wm. F. Ellis of Chicago is consulting engineer.

Ga., Letford.—Contract has been let and work is in progress on the extension of the Savannah & Southern Railway from Norden to Lanier, Ga., where connection will be made with the Seaboard Air Line. It will be completed in about a month. S. Starr is general manager.

Ga., Savannah.—James Imbrie, chairman of the Brinson Railway Co., 45 Broadway, New York, says that a proposed expenditure of about \$125,000 for general work on revision of grades and special track improvement has been approved and the work is expected to be done this summer. R. Morgan is assistant general manager and superintendent at Savannah, Ga.

Ky., Lexington.—Concerning a recent press report that the Louisville & Nashville Railroad would spend \$1,000,000 improving its Lexington & Eastern Railway, the company says that the report is greatly exaggerated. The Lexington & Eastern is rebuilding a number of its bridges, most of which are small. Contract for the superstructures has been let to the Louisville Bridge & Iron Co. The railroad company's forces will construct the masonry. W. H. Courtney, Louisville, is chief engineer.

La., Alexandria.—The Alexandria & Western Railroad Co., it is reported, has obtained site for its station in Alexandria, and grading has advanced to the Bayou Rapides. Officers are elected thus: T. C. Lawless, president; Wm. E. Stewart, vice-president;

La., Crowley.—Standard Rice Milling Co. awarded contract to H. J. Andrews, Crowley, to erect warehouse; 130x200 feet; fireproof; electric lighting; cost \$10,000; plans by Sangulnet, Staats & Gottlieb, Houston, Tex. (Recently noted.)

Md., Baltimore.—Samuel Rosenthal awarded contract to Consolidated Engineering Co., Gunther Bldg., Baltimore, to erect warehouse on Gay St. near Water St.; three stories; fireproof; plans by Leon Levi, Real Estate Trust Bldg., Philadelphia, Pa. (Recently noted.)

N. C., Greensboro.—W. B. Hunt has contract to erect warehouse.

Peter Cherry, secretary and treasurer; W. W. Whittington, Jr., and G. P. Whittington.

La., Mansfield.—The Kansas City Southern Railroad Co. denies the recent press report that it would build loading tracks and other facilities at Naborton, saying that it does not have such a station.

La., Natchitoches.—J. Tansey of St. Louis is reported to have a contract on the construction of the Orange & Northeastern Railway between Natchitoches, La., and Orange, Tex. Route is via Leesville and Merryville, La. A. R. Carver, Natchitoches, is chief engineer.

La., Opelousas.—E. E. Shackford, manager, is quoted saying that construction of the Louisiana Traction Co.'s proposed railroad between Lafayette, Opelousas and Washington, La., will begin about August. Survey is in progress.

Md., Baltimore.—President Samuel Rea of the Pennsylvania Railroad Co. announced in a conference at the City Hall with the Mayor and other city officials that the company plans construction of a four-tracked line from Union Station to Calvert Station, where there are now two tracks; also the construction of a freight yard four blocks long and two blocks wide, including the site of Calvert Station, this to contain many additional tracks. This is the beginning of plans which will involve the expenditure of about \$10,000,000 in and around Baltimore. An agreement is yet to be reached with the city authorities as to the freight yard, and as for the other plans at Bayview and Canton, they will not be considered until the yard matter is settled. A. C. Shand, Broad Street Station, Philadelphia, Pa., is chief engineer.

Md., Chesapeake Beach.—The North Beach Railway Co. has been authorized by the Maryland Public Service Commission to issue \$10,000 of bonds for its proposed line from Chesapeake Beach. John C. Shaw and others are interested. (See Manufacturers Record, April 10.)

Miss., Corinth.—Clopton Thomas, one of the directors of the Corinth & Northeastern Railway, Corinth, Miss., says its proposed line is 22 miles from Corinth to near Hamburg, Tenn., to connect later with a projected line from Nashville. Not yet determined when bids will be received for construction. Other directors, who are also business men of Corinth, are Abe Rubel, president; Russell Dance, G. A. Hazard, H. N. Young, W. D. Conn, J. A. McAmis, R. L. Young and W. E. Small. H. M. McAmis is secretary.

Miss., Gulfport.—The city has voted unanimously, says a report, to issue \$150,000 of 5 per cent. bonds to aid the Gulfport & Western Railway from Gulfport, Miss., to Covington, La., 62 miles. W. H. Hardy is president; L. N. Dantzler and R. L. Simpson, vice-presidents; George P. Hewes, treasurer, and J. D. Hardy, secretary. It is stated that construction will begin within 60 days.

Mo., Clarence.—The Marlon County Interurban Railway Co. takes the place of the former Hannibal Northern Railroad Co., the charter for which has been made void, according to a letter. Some new lines are being surveyed. Henry Funk and others are interested.

Mo., Huntsville.—John J. Munding, chief engineer, Moberly, Huntsville & Randolph Springs Railroad Co., says grading contract for the line was awarded to the Jennings Construction Co., Joplin, Mo. Estimated cost, \$13,000. Contract for concrete work was awarded to Edwin Freed of Moberly, Mo., at \$8.50 per cubic yard. C. H. Dameron is president of the railroad company, W. T. Dameron vice-president, W. M. Evans secretary, and G. P. Dameron treasurer.

Mo., St. Joseph.—The St. Joseph & Savannah Railway Co. is considering a proposition to build an electric railway from tanberry to Empire Prairie, Mo., about 11 miles. J. H. Van Brunt of St. Joseph is general manager.

N. C., Hendersonville.—The Blue Ridge & Interurban Railway Co., which proposes to build a line to connect Spartanburg, S. C., with Saluda and Hendersonville, N. C., operating it with electricity from a proposed plant on Green River near Hendersonville, is backed, it appears, by John Law, Walter Montgomery, Horace Bomar, Alexander White, George Lashaw and Joseph Lee, all of Spartanburg, and William A. Law, who is vice-president of the First National Bank of Philadelphia. Mr. Lashaw is the engineer in charge of the plans.

N. C., Waynesville.—Alden Howell and John P. Swift of Waynesville and others are reported interested in plans for the construction of an electric interurban railway to connect Waynesville, Canton, Clyde, Hazelwood and Dellwood, going around Lake Junaluska. Estimated cost not more than \$17,000 per mile.

N. C., Wilkesboro.—The \$20,000 of 5 per cent. bonds for which bids will be opened June 20 are a township issue to aid construction of the Watauga & Yadkin River Railroad, of which W. J. Grandin, Lenoir, N. C., is president, this being designed to cover 21 miles from North Wilkesboro to Grandin and thence to Boone, N. C., altogether 50 miles. Construction is under way on part of the road.

Okl., Cushing.—The Cushing Railroad Co. has filed incorporation articles to build an electric railway 12 miles long from Cushing to Drumwright in a new oil field. Preliminary survey is made and right of way bought. The road is to be in operation within seven weeks. Incorporators are Paul Arbon and C. E. Perry of Tulsa, Okla.; T. J. Hughes, J. H. Bellis and R. C. Jones of Cushing, Okla.

S. C., Alcolu.—The Alcolu Railroad Co., it is reported, contemplates extending its line to Sumter, S. C. R. J. Alderman is president at Alcolu, S. C.

S. C., Cross Anchor.—Daniel M. Miles and others are reported planning the construction of an electric railway from Cross Anchor north to Spartanburg, S. C., about 20 miles.

S. C., Florence.—The South Carolina Western Railway, says a report, will build an extension from Florence to Poston, S. C., about 30 miles. W. R. Bonsal, Hamlet, N. C., is president.

Tenn., Bristol.—Lester C. Busch, secretary of the Board of Trade, says that survey is just completed for the projected steam railroad belt line, which plan is still in an embryonic state. Its construction depends upon the decision of the Southern Railway and the Norfolk & Western Railway companies, whose presidents are expected to confer regarding it. About eight miles of track would have to be built.

Tenn., Chattanooga.—C. E. James, Chattanooga, says he is not interested in any way in plans to build a railroad to Tracy City or Whitwell, Tenn. This refers to a recent press report.

Tenn., Franklin.—The Middle Tennessee Traction Co. has amended its charter to build extensions and to increase the capital stock from \$10,000 to \$250,000. G. B. Howard, Franklin, Tenn., is chief engineer. Proposed line as previously reported is from Mt. Pleasant, Tenn., via Pulaski to Huntsville, Ala., about 70 miles. J. H. Carpenter, Columbia, Tenn., is president.

Tenn., Nashville.—President H. H. Mayberry of the Nashville-Gallatin Interurban Railway is quoted saying that property has been bought at Union St. and Second Ave. for the erection of a terminal station. The purchase was made by the Fidelity Securities Corporation, which built the road.

Tex., Athens.—Rumored that the Texas Short Line Railroad Co. contemplates extending its line from Grand Saline south to Canton, Athens, Houston and Galveston, Tex., about 250 miles; also north from Grand Saline to Sulphur Springs and Paris, Tex., or to McAlester, Okla. T. B. Meeks, president and general manager, is at Grand Saline, Tex.

Tex., Dallas.—Engineers of the Stone & Webster Corporation at Dallas, Tex., are reported to have announced plans for the proposed interurban railway station at Dallas, which will contain tracks sufficient for 25 interurban trains, and work will begin in a few weeks.

Tex., Ennis.—A. L. Burge, secretary Booster Club, Ennis, Tex., says that the proposed railroad would be about 25 miles long out of Ennis, but its terminus at the other end is not selected. E. M. Thomas is chairman of the railroad committee. No incorporation has been obtained. The proposed name is Ennis & Southwestern.

Tex., McKinney.—W. A. Webb, general

manager Missouri, Kansas & Texas Railway, Dallas, Tex., is quoted as saying that the road proposes to build an extension from McKinney to Denton, Tex., about 30 miles. S. B. Fisher, St. Louis, Mo., is chief engineer of construction.

Tex., Temple.—W. S. McGregor of Temple, active vice-president and general manager of the Temple Northwestern & Gulf Railway Co., is quoted as saying construction will begin within 30 days out of Temple and the line will be built to Moffat, 12 miles, by July 15. The grade of the old Temple, Northwestern Railway, on which four miles of track were laid, will be used to Gatesville. Line is to extend to Dublin, Tex., 100 miles.

Tex., Temple.—W. S. McGregor, vice-president and general manager Temple Northwestern & Gulf Railway Co., Temple, Tex., says that bids for construction and equipment will be opened about July 1, the work to be under the company's own supervision. Proposed line is 100 miles from Temple via Gatesville to Dublin, Tex., and will include several steel bridges. Jas. F. Sadler is president, John H. Thompson being vice-president and director, and Jonathan Lane vice-president and general counsel. A. S. Vandervoort is treasurer, J. R. Thompson secretary, and W. E. Dozier chief engineer.

Tex., Westminster.—The Blue Ridge Interurban Railway, says a report, has operated its first car from Westminster to Anna, Tex., about 5 miles, and grading is about done from Westminster to Blue Ridge, about 7 miles more. It is proposed to extend to Greenville, Tex., about 25 miles from Blue Ridge. A. R. Nicholson of Greenville is interested.

Va., Abingdon.—The New River, Holston & Western Railroad Co., W. E. Minega, president, has awarded contract to J. J. Boxley & Son of Roanoke, Va., to build 14½ miles of line from Rocky Gap to Sulzers, Va., all in Bland county. P. W. Early is chief engineer at Abingdon, Va.

Va., Abingdon.—The Virginia-Carolina Railway Co. has awarded to the Callahan Construction Co. of Knoxville, Tenn., contract for the construction of an extension from Green Cove, Va., to Todd, N. C., 40½ miles, the route being through Washington and Grayson counties, in Virginia, and Ashe county, North Carolina. W. E. Minega is president, and P. W. Early, chief engineer, of the railroad at Abingdon, Va.

Va., Norfolk.—The Bush Bluff Railway Co. plans construction of a line from Sandy Point, on Tanners Creek near Norfolk, several miles to the Virginia Railway at Sewalls Point. Fergus Reid of Norfolk and others are interested.

Va., Norfolk.—An officer of the Norfolk & Western Railway is reported saying that a "hump" for switching purposes will be constructed in the Barney yard of the company at Norfolk, this being the approach to the new coal pier. C. S. Churchill, Roanoke, Va., is chief engineer.

Va., Richmond.—The Southern Railway Co., says a local report, is about to begin construction of a freight yard of 400 cars capacity near Bell Isle bridge. W. H. Wells, Washington, D. C., is chief engineer of construction.

Va., Wise.—Construction is reported begun on the upper Pound River extension of the Indian Creek & Pound River Railroad for a distance of seven miles to timber and coal lands of the Tidewater Lumber Co.

W. Va., Bluefield.—The Virginian Railway Co., according to a local report, has let contract to build a tunnel 5100 feet long between Princeton and Merrimac. H. Fernstrom, Norfolk, Va., is chief engineer.

W. Va., Rivesville.—The Buckhannon & Northern Railroad Co., says a report, is preparing to build an extension connecting Fairmont and Rivesville, about seven miles, including a bridge about 900 to 1000 feet long over the Monongahela River. S. D. Brady, Morgantown, W. Va., is chief engineer.

W. Va., Morgantown.—The West Virginia Traction & Electric Co. does not contemplate this year any other work than general repairs. This refers to recent press reports concerning extensive betterments. H. R. Warfield, Wheeling, W. Va., is president.

W. Va., Ridgeley.—J. L. Miller, president, says that the Ridgeley & Miller Avenue Railroad Co. will build 2½ miles from Ridgeley to Millersdale, along a county road. Contract not yet awarded. A. Ridgeley is vice-president; C. A. L. Miller, treasurer, and R. A. Radcliff, secretary.

STREET RAILWAYS

Ark., Little Rock.—The Little Rock Railway & Electric Co. has completed plans for the construction of its extension to Biddle.

Ga., Waycross.—The Waycross Street & Suburban Railway Co. is reported making arrangements to build an extension to Gilchrist Park. A. B. Coryell is superintendent.

Okl., McAlester.—The Choctaw Railway & Lighting Co., says a report, is considering plans to extend its railway from Hartshorne to Gowan and Cambria. This would require two spurs, one about five miles and the other about two miles long, respectively.

S. C., Anderson.—The North Anderson Development Co., recently capitalized at \$50,000 paid in, proposes, it is announced, to construct an electric railway between its property at North Anderson, a suburb, and Anderson, the line to be operated in connection with the street railway in the city.

S. C., Spartanburg.—The Spartanburg

Street Railway proposes to regrade and relay some of its track. F. H. Knox is vice-president and general manager.

Tex., Wichita Falls.—The Wichita Falls Traction Co. is reported about to build a two-mile extension. T. R. T. Orth is vice-president and general manager.

W. Va., Grafton.—The Grafton Traction Co. is reported surveying on St. Mary St. to build a connecting line.

W. Va., Huntington.—According to a report quoting W. W. Magoon, general manager, the Ohio Valley Electric Railway Co. will apply for franchise to construct double-track street railway on Third and Fourth Aves. An extension to Ritter Park is also to be built.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Bicycle Parts.—F. W. Erhard, care F. J. Fink Stationery & Printing Co., 217 Tremont St., Galveston, Tex.—Bicycle parts and information as to where can place order for manufacture of such parts.

Boiler.—Maxton Light & Power Co., J. J. Kincaid, president, Maxton, N. C.—Will buy 100-horse-power boiler.

Boilers.—Hampton Wilson, Cluster Springs, Va.—Prices on boilers for heating plant.

Boiler, etc.—Treasury Department, office of Supervising Architect, Washington, D. C. Proposals received until June 27 for new heating boiler, breeching, stack, etc., in post-office and courthouse, Asheville, N. C., in accordance with specification, copies obtainable at this office at discretion of Supervising Architect, O. Wenderoth.

Brick.—First Methodist Episcopal Church, Rev. S. A. Keen, pastor, St. Petersburg, Fla. Prices on brick.

Bridge.—Proposals with plans received by Board of Supervisors, King William County, King William, at clerk's office, until June 23 for building of steel approach 150 feet long by 12 feet wide to Indian Fable bridge on King William side of Pamunkey River; abutment and pillars of concrete; B. C. Garrett, clerk.

Bridge Construction.—Bids received until June 24 for repairs on Spring St. bridge, Macon, Ga.; estimated cost \$13,000; plans and specifications with J. J. Gaillard, City Engineer; bids to be marked "Bids for Repair of Spring Street Bridge," and addressed to Bridges Smith, clerk of council.

Bridge Construction, etc.—Bids received at office of L. P. Slater, City Clerk, Portsmouth, Va., until July 1 for material, labor and construction, complete, of following in separate contracts: (1) Gosport bridge on 1st St.; reinforced concrete, 65 feet wide, 10-foot span. (2) Two reinforced concrete culverts; one at north end Dinwiddie St., about 105 feet long, 4 feet diameter; at south end, about 310 feet long, 4 feet diameter; detail plans and specifications to be submitted with bids; blueprints obtainable from V. O. Cassell, Jr., City Engineer.

Building Materials.—Moore Bros., Beckley, W. Va.—Prices on building materials, including stone, concrete, steel and brick.

Heating Plant.—Duncanville Independent School District, T. A. Sliger, president, Duncanville, Tex.—Prices on ventilating heating system for \$10,000 school building.

Building Materials.—J. D. Coker, R. F. D. No. 1, Hartsville, S. C.—Prices on brick, cement, lime, sash, doors, moldings, desks, blackboards and metal shingles for \$8000 to \$10,000 school.

Building Materials.—Alexander Hay, 127 Carondelet St., New Orleans, La.—Prices on metal lath, art glass and hardwood flooring for \$5000 residence.

Building Materials.—Charles W. Guthrie, Shelbyville, Ky.—Prices on mantels, hardwood floors and electric-light fixtures.

Building Materials.—John T. Taiton, Clayton, N. C.—Catalogues of building materials.

Cars.—O. R. Whitney, 39 Cortlandt St., New York.—Ten 35-inch gauge, 20,000 to 30,000-pound capacity flat cars; prompt delivery.

Cars.—S. H. Baker, Box 884, Richmond,

Va.—Twenty mine or quarry cars, 42-inch gauge; about two tons capacity. State price and location first letter.

Chain (Endless Railway).—Tateish Trading Co., No. 7, Minami-Daikucho, Kiohashi-ku, Tokyo, Japan.—Chain or rail for wheels; to be attached so wheels always roll on the chain, which forms smooth road.

Concrete.—See "Steel and Concrete Work."

Conveying Machinery.—Gulf Compress Co., C. C. Hanson, receiver, Memphis, Tenn.—Electric apparatus for unloading and elevating freight from steamboats and barges into warehouses on Mississippi River at Vicksburg.

Conveying Machinery.—Twin Mountain Orchards, W. P. Russell, manager, Twin Mountain, W. Va.—Prices on conveyor for removing refuse.

Cotton Gin.—Farmers' Co-operative Gin Co., Stonewall, Okla.—Prices on complete ginning equipment. Address Albert Gill, manager, Box 223.

Cottonseed Oil.—S. D. Demetriades, Samsoun, Black Sea.—Addresses of companies handling cottonseed oil for export; view to representation.

Crusher.—S. H. Baker, Box 884, Richmond, Va.—Prices and location on small size portable stone crusher.

Distilling Machinery.—Preserved Tie Co., Kenova, W. Va.—Addresses of manufacturers of distilling machinery for making acetic acid and wood alcohol from sawdust and other sawmill refuse.

Distilling Machinery.—Florida East Coast Pineapple Syrup Co., F. Spencer, manager, West Palm Beach, Fla.—Information and prices on machinery for making denatured alcohol out of pineapple tops.

Drainage.—Board of Commissioners, North Caddo Drainage District, 500 First National Bank Bldg., Shreveport, La., will improve drainage work through Alligator Slough and Dooley Bayou, in Caddo parish. In accordance with plans and specifications on file in office of Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La.; bids received until June 10 (extended date).

Electric-light Plant.—St. Andrews Ice & Power Co., Box 142, St. Andrews, Fla.—100-kilowatt generator and complete equipment for town lighting.

Electrical Machinery.—See "Water-power Machinery."

Electrical Machinery, etc.—Scottsboro Light & Power Co., Scottsboro, Ala.—Dynamo and wire.

Electrical Machinery.—Stokes Construction Co., Box 153, Cushing, Okla.—Prices on motors.

Electrical Machinery, etc.—Anti-Choleric Stock Remedy Corporation, C. D. Gilliam, president, Norfolk, Va.—Prices on electric motors.

Electrical Machinery.—Maxton Light & Power Co., J. J. Kincaid, president, Maxton, N. C.—Prices on transformers and line equipment.

Electrical Machinery, etc.—City Light and Water Plant, Morton R. Martin, resident engineer and superintendent, Oregon, Mo.—Prices on 35 to 28 degrees distillate gas engine oils; gas engine packing; waste, W.

P. and R. C. wire; motors; fan and power; mazda lamps; irons, heaters and household devices; also inside wiring materials and fixtures.

Elevators.—Treasury Department, office of supervising architect, Washington, D. C.—Proposals received until June 17 for two electric passenger elevators in United States courthouse and postoffice, Philadelphia, Pa.; drawings and specifications obtainable at this office, at discretion of architect, O. Wenderoth.

Elevator.—C. M. Davis, secretary Tampa Yacht and Country Club, Box 53, Tampa, Fla.—Prices on dumbwaiter.

Excelsior Machines.—Geo. W. Gray, Woodford, Va.—Second-hand excelsior machine; good condition. (Kline preferred.)

Flywheel.—Penn Sumter Lumber Co., Sumter, S. C.—Second-hand engine flywheel; 8 feet diameter, 8½-inch bore and face for 24-inch belt.

Foundry Equipment, etc.—Universal Plov Co., Florence, S. C.—Bulldozer, taper roll, trip hammer and foundry equipment.

Furniture.—See "Hotel Furnishings."

Furnace.—Frank Burnett, Clayton, Mo.—Prices on furnace for \$3000 dwelling.

Galvanizing.—Freeport Sulphur Co., Freeport, Tex.—Information relative to galvanizing special pipe fittings as large as a joint of 10-inch pipe; will require galvanizing on inside as well as outside.

Gas Lighting, etc.—Hypoluxo Development Co., Hugh F. Talbot, engineer, West Palm Beach, Fla.—Catalogues and prices on gas equipments for lighting and cooking.

Gas Plant Material and Equipment.—Proposals received by Mayor (J. D. Edmondson) and City Council, Lagrange, Ga., for apparatus, material and labor necessary to install municipal water-gas plant; work will include 4-foot water-gas set; 10,000-gallon capacity oil tank; 8x10x5-foot purifiers; 5½-foot station meter; 8-inch governor; 40,000 cubic feet steel holder; necessary station buildings and connections, and 8½ miles 4-inch to 8-inch cast-iron gas mains; specifications obtainable and plans may be seen at office of City Clerk, Lagrange, or from undersigned on and after June 15; James Nisbet Hazelhurst, engineer, Candler Bldg., Atlanta, Ga.

Heating and Plumbing.—Board of Education, R. D. Norwood, chairman, Lexington, Ky., receives bids until June 14 for installation of heating and plumbing in 18-room school building; plans and specifications at office of Anderson & Frankel, architects, Lexington.

Heating Plant.—J. D. Coker, R. F. D. No. 1, Hartsville, S. C.—Prices on furnace for \$8000 to \$10,000 school building.

Heating Plant.—John Hickson, care of Hickson Lumber Co., Cheraw, S. C.—Prices on heating plant for country residence.

Heating Plant.—Alexander Hay, 127 Carondelet St., New Orleans, La.—Prices on hot-air furnace.

Hotel Furnishings.—E. N. Morrow, Mulberry, Fla.—Prices on hotel furnishings for hotel at Lakeland, Fla., containing 78 rooms and bath.

Ice Machinery.—Amos W. Corbett, St. Augustine, Fla.—Prices on equipment for small ice plant.

Isolated Water-works.—John Hickson, care of Hickson Lumber Co., Cheraw, S. C.—Prices on water-works for country residence.

Laundry Machinery.—W. W. Burgess, 201 E. Pine St., Florence, S. C.—Prices on new and second-hand equipment for steam laundry.

Levee Construction.—Mississippi River Commission, Fourth District, U. S. Engineer Office, Metropolitan Bank Bldg., New Orleans, La.—Proposals for constructing about 615,000 cubic yards of earthwork in Lower Tensas Levee District received until June 9. Information on application. C. O. Sherrill, Captain, Engineers.

Levee.—Mississippi River Commission, Third District, U. S. Engineer Office, Vicksburg, Miss.—Proposals received until June 14 for constructing about 580,000 cubic yards earthwork to close Skipwith Crevasse, Lower Yazoo Levee District, Miss.; 530 miles below Cairo; all new work. Information on application. J. A. Woodruff, Major, Engineers.

Lighting Fixtures.—See "Building Materials, etc."

Lighting.—John Hickson, care of Hickson Lumber Co., Cheraw, S. C.—Prices on lighting system for country residence.

Locomotive.—Sabel Bros., Jacksonville, Fla.—Standard-gauge locomotive, 12 to 18 tons.

Locomotives.—O. R. Whitney, 39 Cort-

landt St., New York.—Two 30-ton standard-gauge locomotives; six wheel, connected, first-class condition, for prompt delivery.

Lock Valves Construction.—U. S. Engineer Office, Galveston, Tex.—Proposals for construction of lock valves and operating gear, etc., received until June 27. Information on application. C. S. Riche, Lieutenant-Colonel, Corps of Engineers.

Machine Tools.—See "Foundry Equipment, etc."

Manufactured Products.—Julio G. Olive, Casilla Correo 188, Rosario, Argentine. Correspondence with manufacturers; view to representation.

Mill Work and Flooring.—Department of Justice, Office of R. V. La Dow, Superintendent of Prisons, Washington, D. C.—Proposals received until June 27 for furnishing and delivering at United States Penitentiary, Atlanta, Ga., mill work and flooring for administration building in accordance with specifications, copies of which, together with further information, are obtainable on application to this office.

Mixing Machinery, etc.—Anti-Choleric Stock Remedy Corporation, C. D. Gilliam, president, Norfolk, Va.—Prices on sifters and mixers.

Paper-bottle Machinery.—Progressive Farmer, Raleigh, N. C.—Addresses of manufacturers of paper milk-bottle machinery.

Paving.—City of Marietta, Okla., receives bids until June 11 for construction of about 26,000 yards asphaltic concrete pavement; Benham Engineering Co., 435 American National Bank Bldg., Oklahoma City, Okla., consulting and supervising engineer.

Paving, etc.—Bids received by Commissioners of Streets and Public Property, Cumberland, Md., until June 4 for grading and paving Franklin, Schely, Magruder, Wallace and South Lee Sts., 2150 feet; also curbing on Oldtown Rd. and Wineow St., 3900 feet, and 2000 feet curb and preparing of foundation for asphalt on Thomas St.; plans and specifications at office of James P. Gaffney, City Engineer.

Paving.—Office Commissioners District of Columbia, Washington, D. C.—Proposals received at office of secretary Board of Commissioners, 509 District Bldg., until June 12 for laying sidewalks in district; forms of proposals, specifications and necessary information obtainable from chief clerk Engineering Department, Room 427 District Bldg.

Paving, etc.—Proposals received at any time before June 27 by Mayor of St. Martinville, La., for furnishing of material and for building cement sidewalks and curbs; bids to be filed with secretary and treasurer of town. For particulars address Albert Bienvenu, Mayor.

Paving Materials.—Office of E. R. Conant, chief engineer, Savannah, Ga.—Proposals received until June 12 by Committee on Streets and Lanes for furnishing 17,000 square yards asphalt paving block or cressed wood paving block; further information obtainable on application to this office.

Paving.—Proposals received by Julien Smith, City Engineer, City Bldg., Selma, Ala., until June 12 to lay about 16,000 yards of Dolarway pavement with necessary storm sewers, inlets, manholes and concrete curbing; plans and specifications in engineer's office.

Paving, etc.—Improvement Districts Nos. 15 and 16 of Argenta, Ark., will construct with concrete 53,000 and 53,500 square yards, respectively, on certain streets, and lay one mile of vitrified pipe storm sewer in each district; bids received at office of A. B. Gerlach, City Clerk, until June 2; plans and specifications at office of City Clerk, and at office of Lund & Hill, engineers for districts.

Paving, etc.—Bids received at office of Board of Control, Norfolk, Va., until June 9 for regulating and repaving Bank St. from Main St. to south curb line of City Hall Ave.; work will consist of about 500 linear feet of new curbing, 500 linear feet of old curb culled and reset, 1550 square yards of wood block paving and 100 cubic yards of extra concrete under tracks; plans, specifications, blank forms, etc., obtainable on application to W. T. Brooke, City Engineer; any party desiring to bid on wood blocks under specifications differing from those of City Engineer must furnish said specifications with his bid.

Paving.—City of Bryan, Tex., will open bids about June 15 for 25,000 square yards paving; Carson & Adams, engineers, Bryan.

Plumbing, Marble Work, etc.—Department of Interior, Washington, D. C.—Proposals in duplicate received until June 12 for all labor and material (unless otherwise specified) for installation of plumbing and of marble, tile and terrazzo work in

rooms 230 and 250, patent office building, Washington, and for rewiring halls, etc.; specifications obtainable on application to chief clerk of department.

Pulley.—Chas. T. Lehman, 1923 Powell Ave., Birmingham, Ala.—Flywheel pulley; 16-foot diameter, 30 to 36-inch face, bore 12½ or 13 inches. Give description, weight, shipping point and price.

Pumps.—Stokes Construction Co., Box 153, Cushing, Okla.—Prices on 5x8 triplex pumps.

Rail Joints.—O. O. Rosson, Dustin, Okla. Correspondence with manufacturers, with view to placing order for manufacture of rail joint "per ton pounds."

Rails and Ties.—Temple, Northwestern & Gulf Railway Co., W. S. McGregor, general manager, Temple, Tex.—Will purchase rails and ties; will construct 100-mile railroad.

Road Construction.—Bids received at office of clerk, Cumberland Courthouse, Va., until June 14 for constructing following soil roads in Cumberland county: Whitville and Thomas Chapel, 1.3 miles; Farmville toward Cumberland Courthouse, 2 miles; Cumberland Courthouse toward Farmville, 1.6 miles; Cumberland Courthouse and Centerville, 1.5 miles; Farmville toward Jamestown, 1 mile; plans and specifications at office of clerk; P. St. J. Wilson, State Highway Engineer, Richmond, Va.

Road Construction.—Bids received at office of Paul C. Smith, clerk, Crescent City, Fla., until June 18 for shelling driveway 8 feet wide and 7 inches deep on Oakwood Ave., Citron Ave. and Walnut St. to north limit of town, about 1500 running yards; clearing and grading to be done by town. For plans and specifications apply at office of the Town Clerk.

Road Construction.—Calhoun county will grade, drain and surface with macadam about 1½ miles of Piedmont and Jacksonville road; bids received until July 1 (extended date) at courthouse, Anniston, Ala.; expenditure \$4000; W. S. Keller, State Highway Engineer, Montgomery, Ala.

Road Construction.—Bids received by Board of Revenue of Shelby county at Courthouse, Columbiana, Ala., until July 3 for grading and draining part of Alabama and Saginaw Road; expenditure \$4000; W. S. Keller, State Highway Engineer, Montgomery, Ala.

Road Machinery.—Jefferson county, Texas, R. W. Wilson, county judge, wants prices on six and eight-ton roller; engineer, F. R. Blanchette, Box 185, Beaumont, Tex.

Road Machinery.—A. J. Dills, secretary Sylva Township, Sylva, N. C.—Prices on steam or gasoline roller.

Road and Bridge Construction.—State Roads Commission, William L. Marcy, secretary, 534 N. Howard St., Baltimore, Md., invites proposals for building seven sections of State highway, aggregating 16.53 miles, and one bridge, as follows: Baltimore city, one section along Reisterstown Rd., 1 mile (grading); one section along Frederick Rd., about 1.69 miles long (vitrified brick); one 2-100-foot-span reinforced concrete arch bridge across Gwynns Falls; Baltimore county, one section along Yorks, about 5.60 miles (resurfacing macadam); Carroll county, one section, 1.60 miles long (resurfacing macadam); Frederick county, one section, about 2.50 miles long (resurfacing macadam); Montgomery county, about 1.25 miles long (macadam or concrete); Talbot county, one section, about 2.94 miles long (concrete or macadam); bids received until June 12; bids upon blank form as in book of specifications; latter furnished by commission upon application and payment of \$2 for each section; blueprints of each section furnished at 25 cents for each half-mile; certified check for \$500.

Roofing.—Frank Burnett, Clayton, Mo.—Prices on tile roof for \$3000 dwelling.

Safe, etc.—Citizens' Trust Co., Murfreesboro, Tenn.—Prices on safe, vault and other bank fixtures.

Safe, etc.—Bank of Eclectic, Eclectic, Ala. Prices on safe, vault and other bank fixtures.

Sawmill.—Wm. E. Benson, president of Dixie Railway Co., Benson, Ala.—Machinery for complete sawmill plant of 50,000 feet daily capacity.

Sawmill Machinery.—J. H. Watkins, Monroe, La.—Prices on sawmill carriage, saws, shafting and edger; capacity 15,000 to 20,000 feet daily.

Seating.—Metropolitan Realty & Investment Co., Ocala, Fla.—Several hundred opera chairs; wants addresses of manufacturers.

Sewers.—Bids addressed to chairman of sewer committee, Atlanta, Ga., and endorsed

with name of bidder, received at office of undersigned until June 10 for construction of two groups of sewers, each group about five miles long. Specifications obtainable upon application to undersigned; R. M. Clayton, chief of construction.

Sewers.—See "Paving, etc."

Sewers.—Bids received at office of City Auditor, Tulsa, Okla., until June 9 for construction of sanitary sewers in district No. 26; plans and specifications in office of T. C. Hughes, City Engineer.

Sewers.—Proposals had at office of chairman, T. E. Smith, care Cooper-Dickinson Grocer Co., Little Rock, Ark., until June 9 for construction of sewer; plans and specifications obtainable upon application to H. Levinson, superintendent of public works; T. E. Smith, chairman sewer district No. 77.

Sewer Construction Materials.—Stokes Construction Co., Box 153, Cushing, Okla.—Prices on siphons, manhole covers, reinforcing (Hy-Rib) steel, etc.

Sewer System.—Hypoluxo Development Co., Hugh F. Talbot, engineer, West Palm Beach, Fla.—Catalogues and prices on septic sewer system.

Sewers.—Board of Commissioners, District No. 1, Brinkley, Ark., will construct sewers and sewage treatment works; about seven miles 8 to 12-inch pipe, 42 manholes, 32 flush tanks, sewage treatment works and sewage pumping equipment; bids received until June 12; plans and specifications at office of Elmo Chaney, chairman Board of Commissioners, and may be had on deposit of \$25 from Frank L. Wilcox, engineer, Chemical Bldg., St. Louis, Mo. (Bids recently noted to be received June 12.)

Sewers.—Bids received at water office, Danville, Ky., June 14 for furnishing and constructing sanitary and storm sewers; work includes 150 feet 30-inch, 555 feet 36-inch, 450 feet 30-inch, 450 feet 24-inch, 194 feet 24-inch, 1855 feet 8-inch vitrified sewer pipe, necessary inlets, manholes and flush tanks and alterations and additions to two sewage-disposal plants; plans and specifications at office of W. S. Shields Company, 1201 Hartford Bldg., Chicago, Ill., and at water office, Danville; J. M. Wallace, Mayor.

Sewers.—John Hickson, care of Hickson Lumber Co., Cheraw, S. C.—Prices on sewerage system for country residence.

Sewers.—Proposals received by Board of Commissioners at office of John D. Kelley, City secretary, Galveston, Tex., until June 7 for furnishing all material and constructing 8-inch sewer lateral in alley between Avenue R and R½; will require 760 linear feet 8-inch vitrified pipe, 760 linear feet 2x10-inch foundation plank, 2 manholes complete and 28 pieces 6x8-inch "Y" branches; plans and specifications at office of A. T. Dickey, City Engineer.

Steel and Concrete Work.—W. S. Huntington, structural engineer and contractor, 412 Security Bldg., Galveston, Tex.—Catalogues and other literature pertaining to steel and concrete work.

Terra-cotta Panels, etc.—Southern Seating & Cabinet Co., Jackson, Tenn.—Addresses of manufacturers of terra-cotta panels and urns.

Tiling.—Frank Burnett, Clayton, Mo.—Prices on tile for bathroom for \$3000 dwelling.

Tractor Equipment.—See "Chain (Endless Railway)."

Underground Conduit, Sluice Gates, etc.—Sewerage and Water Board, New Orleans, La.—Separate proposals received by secretary at office of board, Room 508 City Hall Annex, until July 23 for work to be executed under following contracts: Contract 53-D, underground conduit from sewerage station A to Mississippi River; contract 55-D, extension to drainage pumping station No. 1, including all foundations, suction and discharge basins; contract 56-D, sluice gates for drainage pumping station No. 1; contract 57-D, traveling crane for drainage pumping station No. 1. Plans, specifications and blank form of proposal obtainable on application to office of board; F. S. Shields, secretary.

Water System.—Hypoluxo Development Co., Hugh F. Talbot, engineer, West Palm Beach, Fla.—Catalogues and prices on compressed air water system.

Water-power Machinery.—Southern Hydro-Electric Co., D. L. Rush, P. O. Box 255, New Orleans, La.—To correspond with manufacturers of water-power equipment.

Water-works.—City of Winnsboro, Tex., will construct water-works system; work includes furnishing and laying 6000 feet 8-inch, 2000 feet 6-inch, 200 feet 4-inch cast-iron pipe and 1500 feet 2-inch galvanized-iron pipe, valves and hydrants; 15x19-foot pumping station and erecting pumping equipment; tank

and tower, former to have 100,000 gallons capacity; earth dam; 500-gallon-per-minute triplex pump and 2800 cubic yards earthwork; bids received until June 9 (extended date); Gordon Alvis, City Secretary.

Well-drilling Machinery.—Ed. L. Evans, care of Anderson, Evans & Evans, Jewett, Tex.—Prices on equipment for boring wells.

Wharf Repairs.—Fort Barrancas, Fla.—Proposals, in quadruplicate, for reconstructing and making repairs to wharf at Fort Pickens, Fla., received until June 10, then opened. Information furnished on application. Address Constructing Quartermaster.

Willows.—U. S. Engineer Office, Room 325 Custom-house, New Orleans, La.—Proposals for furnishing about 26,000 cords willows at South and Southwest Passes, Mississippi River, received until June 26. Information on application. Edward H. Schulz, Major, Engineers.

Wire.—See "Electrical Machinery, etc."

Wire-working Machinery.—Houston Fence and Crate Works, Houston, Tex.—Addresses of manufacturers of barb-wire machines; also machines for fancy wire fencing, and crimping machines.

Wire Fence and Gates.—Proposals, endorsed "Proposals for Wire Fence and Gates," received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until June 21, then publicly opened, for wire fence and gates at United States Reservation, Radio, Va.; estimated cost, \$2000. Plans and specifications (specification No. 1982) obtainable on application to bureau. H. R. Stanford, Chief.

Woodworking Machinery.—Cave Spring Planing Mill, Cave Spring, Ga.—Small sanding machine.

Woodworking Machinery.—Oxford Telephone Manufacturing Co., Fayetteville, Ark.—Two planers; other machinery to manufacture telephones and switchboards; also bracket and pin machines.

Woodworking Machinery.—Twin Mountain Orchards, W. P. Russell, manager, Twin Mountain, W. Va.—Prices on saws and frames for lathe with capacity of 12,000 telephone pins.

FINANCIAL NEWS

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending June 2.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	160	160
Alken Mfg. Co. (S. C.)	162	162
American Spinning Co. (S. C.)	48	48
Anderson Cotton Mills (S. C.)	100	100
Anderson Cot. Mills (S. C.) Pfd.	100	100
Arcadia Mills (S. C.)	90	90
Arwright Cotton Mills (S. C.)	100	100
Belton Mills (S. C.)	100	100
Brandon Mills (S. C.)	80	80
Brogan Mills (S. C.)	60	60
Calquella Mfg. Co. (S. C.)	160	160
Clifton Mfg. Co. (S. C.) Pfd.	90	90
Clinton Cotton Mills (S. C.)	100	100
Courtney Mfg. Co. (S. C.)	93	93
Dallas Mfg. Co. (Ala.)	99	99
D. E. Converse Co. (S. C.)	75	75
Drayton Mills (S. C.)	90	90
Eagle & Phenix Mills (Ga.)	106	106
Easley Cotton Mills (S. C.)	162	162
Enoree Mfg. Co. (S. C.)	25	25
Enoree Mfg. Co. (S. C.) Pfd.	95	95
Gaffney Mfg. Co. (S. C.)	65	65
Glenview Cotton Mills (S. C.)	72	72
Glenwood Cotton Mills (S. C.)	100	100
Grantville Mfg. Co. (S. C.)	135	145
Greenwood Cotton Mills (S. C.)	57	60
Grendel Mills (S. C.)	90	100
Hartsville Cotton Mill (S. C.)	175	175
Henrietta Mills (N. C.)	160	175
Inman Mills (S. C.)	100	105
King Mfg. Co., J. P. (Ga.)	80	85
Lancaster Cotton Mills (S. C.)	130	130
Lancaster Cot. Mills (S. C.) Pfd.	97	97
Langley Mfg. Co. (S. C.)	75	75
Laurens Mills (S. C.)	115	115
Limestone Mills (S. C.)	155	155
Lockhart Mills (S. C.)	50	50
Lockhart Mills (S. C.) Pfd.	95	95
Loray Cotton Mills (N. C.) Pfd.	90	90
Mariboro Cotton Mills (S. C.)	70	70
Mills Mfg. Co. (S. C.)	90	102
Molokoh Mfg. Co. (S. C.)	90	90
Monarch Cotton Mills (S. C.)	110	110
Newberry Cotton Mills (S. C.)	125	125
Ninety-Six Cotton Mills (S. C.)	130	130
Norris Cotton Mills (S. C.)	115	115
Orr Cotton Mills (S. C.)	90	90
Pacolet Mfg. Co. (S. C.)	99	99
Pacolet Mfg. Co. (S. C.) Pfd.	95	100
Parker Common.	20	20
Parker Pfd.	60	60
Pelzer Mfg. Co. (S. C.)	120	120
Poe Mfg. Co., F. W. (S. C.)	98	98
Saxon Mills (S. C.)	120	120
Spartan Mills (S. C.)	110	110
Trion Mfg. Co. (Ga.)	130	130
Tucapau Mills (S. C.)	310	350
Union-Buffalo (S. C.) 1st Pfd.	50	50
Union-Buffalo (S. C.) 2d Pfd.	5	5
Victor Mfg. Co. (S. C.)	110	115
Warren Mfg. Co. (S. C.)	80	90
Warren Mfg. Co. (S. C.) Pfd.	100	105
Washington Mills (Va.)	28	110
Washington Mills (Va.) Pfd.	106	110
Watts Mills (S. C.)	50	50
Whitney Mfg. Co. (S. C.)	105	105
Williamston Mills (S. C.)	120	125

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended June 4, 1913.

Railroad Stocks.	Par.	Bid.	Asked.
At. Coast of Conn.	100	99	241
Maryland & Penna.	100	99	304
Monon. Val. Traction Pfd.	100	99	80 1/2
United Rys. & Elec. Co.	50	25 1/2	28

Bank Stocks.	Par.	Bid.	Asked.
Bank of Baltimore	100	185	...
Bank of Commerce	15	30	34
Farmers & Merchants	40	47 1/2	49 1/4
First National	100	100	148
Merchants-Mechanics	10	33	34
Union	100	100	138 142
Western	20	37	40

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Fidelity & Deposit	50	147	149 1/2
Merc. Trust & Dep.	50	162 1/2	165 1/2
Munsey Trust	100	100	104
Union Trust	50	62	64
U. S. Fidelity & Guaranty	100	190	194

Miscellaneous Stocks.	Par.	Bid.	Asked.
Baltimore Electric Pfd.	50	42 1/2	43 1/2
Con. Gas. Elec. Lt. & P. Con.	100	109	109
Con. Gas. Elec. Lt. & P. Pfd.	100	109	110
Consolidated Coal	100	96	96
G. B. S. Brewing Co.	100	1	2
Mer. & Min. Trans. Co. V. T.	100	58	...

Railroad Bonds.	Par.	Bid.	Asked.
Atlantic Coast 1st 4s.	100	91 1/2	92 1/2
At. Coast Conv. Deben. 4s.	100	92	92 1/2
At. Coast Conn. 4s. Cfs., 5-20s.	100	87 1/2	91
At. Coast Conn. 5s. Cfs.	100	100 1/2	101 1/2
At. Coast S. C. 4s.	100	94	94
Balto. & Harria. 5s.	100	101	106
Baltimore & Ohio Com. 4 1/2s.	100	91 1/2	92 1/2
Carroll & Annap. 1st 5s.	100	91	91
Coal & Iron Railway 5s.	100	98	99
Florida Southern 4s.	100	86	86
Georgia & Alabama 5s.	100	101 1/2	103
Georgia & Florida 5s.	100	61	61
Ga. Car. & North. 1st 5s.	100	100	103
Ga. South. & Fla. 1st 5s.	100	103 1/2	104
Maryland & Penna. Inc. 4s.	100	63	63
New Orleans Gt. North. 5s.	100	64	66
New Orleans M. & C. 5s.	100	62	62
Potomac Valley 1st 5s.	100	100 1/2	101 1/2
Raleigh & Gaston 1st 5s.	100	109	109
Raleigh & Gaston 5s.	100	102 1/2	103 1/2
Seaboard 4s. Stamped.	100	81	82 1/2
Seaboard Refdg. 4s.	100	81	81
Seaboard & Roanoke 5s.	100	102	102
Virginia Midland 5th 5s.	100	102 1/2	105
Western N. C. Con. 6s.	100	100 1/2	101
Wash., Balto. & Annap. 5s.	100	86	86

Street Railway Bonds.	Par.	Bid.	Asked.
Atlanta Con. Street Railway 5s.	100	102 1/2	102 1/2
Augusta Railway & Electric 5s.	100	101	105
Balto., Sp. Pt. & C. 4 1/2s.	100	94 1/2	95
Baltimore Traction 1st 5s.	100	104 1/2	104 1/2
Charleston City Railway 5s.	100	94	96
Charleston Con. Electric 5s.	100	94	96
Danville Traction 5s.	100	92	93
Fairmont & Clarksburg Trac. 5s.	100	99	99 1/2
Knoxville Traction 5s.	100	100	100
Macon Railway & Light 5s.	100	96 1/2	98 1/2
Maryland Electric Railways 5s.	100	96 1/2	97
Memphis Street Railway 5s.	100	96	97 1/2
Monon. Val. Traction 5s.	100	96	96
Nashville Street Railway 5s.	100	101 1/2	101 1/2
Norfolk Railway & Light 5s.	100	101 1/2	101 1/2
Norfolk Street Railway 5s.	100	101 1/2	101 1/2
St. Joseph R. L. H. & P. 5s.	100	99	99
United Railways 1st 4s.	100	83	83 1/2
United Railways Inc. 4s.	100	60 1/2	61 1/2
United Railways Notes.	100	103 1/2	103 1/2
Virginia Railway & Power 5s.	100	93	93 1/2

Miscellaneous Bonds.	Par.	Bid.	Asked.
Arundel S. & G. 6s.	100	96	99
Baltimore Brick 5s.	100	80	81
Baltimore Electric 5s. Stp.	100	97 1/2	97 1/2
Consolidated Gas 5s.	100	104 1/2	105 1/2
Consolidated Gas 4 1/2s.	100	90	94
Con. Gas. Elec. Lt. & P. 4 1/2s.	100	86	87
Fairmont Coal 1st 5s.	100	82	82 1/2
G. B. S. Brewing 1st 4s.	100	37	40
G. B. S. Brewing Income 5s.	100	4	5
Mt. Vernon-Woodbury Cot. Duck 5s.	100	68	69
Penna. Water & Power 5s.	100	90 1/2	90 1/2
United Elec. Lt. & P. 4 1/2s.	100	92	92

Review of the Baltimore Market.	Par.	Bid.	Asked.
Bank stock sold as follows: Bank of Baltimore, 185; Citizens', 42 1/2 to 43; Merchants-Mechanics', 34 to 33 1/2; Farmers and Merchants', 48.			
Maryland Casualty sold from 100 to 99 1/2; Fidelity & Deposit, 148 1/2; United States Fidelity, 195 to 194; Mercantile Trust, 165.			

Other securities were traded in thus:	Par.	Bid.	Asked.
Houston Oil common, trust certificates, 18 to 17; do. preferred, 50 1/2; Baltimore, Sparrows Point & Chesapeake 4 1/2s, 95; Pennsylvania Water & Power common, 62 to 60; Baltimore City 3 1/2s, 1936, 91 1/2; Consolidation Coal, 96 to 95 1/2; do.			

convertible 6s, 99 1/2 to 98 1/2; do. refunding 5s, 87 1/4; Virginia Railway & Power 5s, 93 1/2; Chicago Railways 5s, 97 1/2 to 97 1/4; Milwaukee Refunding 4 1/2s, 91 1/2 to 91; Maryland Electric 5s, 97 to 96 1/2; Minneapolis & St. Paul joint 5s, 100 1/2; Georgia Southern & Florida 5s, 103 1/2; Danville Traction & Power 5s, 92 1/2; Georgia & Alabama Consolidated 5s, 102; New Orleans Great Northern 5s, 65; Chesapeake & Ohio Cons. 5s, 105 1/2; Baltimore Electric 5s, stamped, 97 1/2.

Wanted at Laredo.

Board of Trade,
Laredo, Tex., May 27.

Editor Manufacturers Record:

We have a number of propositions here that we would like to have ventilated. We require a good hotel, involving an investment of from \$200,000 to \$250,000. It is most essential that this border town, through which there is such a flood of traffic into and from Mexico in normal times, should have a hotel of this character. This hotel should, as a matter of fact, become an exchange or club and a center of commercial movement.

Laredo has developed an enormous volume of natural gas, and this, with coal close by, and with slack suitable for the manufacture of artificial gas, should put this place in a position to become a manufacturing center. We are prepared for the establishment of new factories or for branches of Eastern manufacturing concerns chartered under Texas laws to obtain the advantages of a very high protection that this State gives the local institutions.

We shall try to agitate the question of a railroad from here to Beeville and another line to connect us with Brownsville.

A canning factory could take charge of a large amount of fruit that is grown here.

R. C. BATEMAN, Secretary.

FINANCIAL CORPORATIONS.

Ala., Eclectic.—The Bank of Eclectic, Incorporated, capital \$15,000, will begin business about September 1. B. L. Gaddis, Jr., president; J. A. Howle, vice-president; J. L. Hamilton, vice-president; Lee Hornsby, cashier. Directors: M. L. Catton, J. Z. Moore, J. D. Edwards, C. H. Billingley, W. L. Lancaster, H. R. Gallison, J. A. Gaddis and J. D. Billingley.

Ark., Judsonia.—The First National Bank has made application to organize; capital \$30,000; organizers, C. M. Eganbright, J. S. Ladd, W. Ladd, F. G. Briggs, T. H. Beals and C. G. Long.

Ark., Judsonia.—The Farmers & Merchants' Bank of Judsonia is chartered; capital \$30,000. Among the incorporators are F. Bauer, president; W. H. L. Woodyard, vice-president, and L. W. Wish, secretary and treasurer.

Ark., Marianna.—The St. Francis Valley Abstract & Investment Co., chartered, will begin business at once; capital \$3000. Organizers: J. M. Bush, H. F. Nelson, Robinson, W. F. Nelson, R. D. Smith, R. L. Smith and W. G. McClintock.

Fla., Jacksonville.—The Florida Securities Co., Incorporated, began business last December; capital \$50,000; surplus \$2000; C. H. Cawley, president; H. A. Williams, secretary and treasurer, Beebe Bldg.

Ga., Atlanta.—The Atlanta State Savings Bank, which is a conversion from a private institution, has made application for charter; capital \$25,000; surplus \$4,902.02. Business will begin as soon as charter is granted. Directors: J. O. Ross, president; C. C. Cater, cashier; D. T. Howard, P. A. Allen, J. O. Connally, E. L. Collin, G. M. Holmes, F. S. Cannon, H. E. Perry, Wm. Driskell, P. A. Keith, H. W. Russell, W. B. Woodall, F. J. Wimberly and M. W. Hill.

Ky., Pineville.—Bank of Pineville, capital \$50,000, incorporated. Business is to begin about July 1 with J. P. Gaddie, president; S. E. Mahan, cashier; M. J. Moss, J. M. Gilbert, J. L. Phillips, N. T. Arnett, F. M. Meadows, directors.

La., New Orleans.—The Tulane Building and Loan Association, chartered with \$50,000, began business May 20. Jos. O. Schwartz, president; A. M. Andrews, first vice-pres-

ident; Harry C. Meyer, second vice-president; H. E. Datz, secretary-treasurer; O. Schreiber, attorney, and J. H. Forcelle, Jr., notary.

Md., Baltimore.—The banking firm of Middendorf, Williams & Co., Inc., which succeeds the firm of Middendorf, Williams & Co., has filed papers. Directors: R. Lancaster Williams, president; T. Garland Tinsley, vice-president and treasurer; Stuart Olivier, secretary; James L. Sellman and J. William Middendorf. Capital \$500,000. Business began June 2.

Md., Frederick.—The Frederick Trust Co., capital \$100,000, expects to begin business September 1; president, Reno S. Harp; vice-presidents, David Cramer and A. W. Ecker; secretary, Claggett E. Ramsburg; executive committee, D. Chester Kemp, Walter B. Leatherman, F. W. Obendorfer, Harry P. Shipley and Claggett E. Ramsburg.

Md., Frederick.—The Central Trust Co. of Maryland, which succeeds the Central National Bank, has begun business; capital and surplus, \$400,000; president, Emory L. Coblenz; chairman of the executive committee, F. C. Norwood; vice-president, Charles Wertheimer; vice-president, John C. Lamar; secretary and treasurer, R. A. Kemp; assistant secretary and treasurer, G. T. Baumgardner.

Miss., Meridian.—The United States National Bank, capital \$100,000, has organized by electing the following directors: E. Cahn, president; A. H. Cooper, vice-president; W. E. Hopkins, R. N. Polindexter and M. E. Dabbs, cashier. Business is expected to begin about the middle of June.

Mo., Kansas City.—The Kansas City Town Mutual Fire Insurance Co., chartered, will begin business about July 1. Albert Marty, G. M. Smith and others incorporators. (See Manufacturers Record, May 29.)

N. C., Denver.—The Bank of Denver is chartered; capital \$25,000; incorporators, John H. McKnight, A. M. Proctor and Norva P. McKnight.

Okla., Bradley.—The First State Bank is chartered; capital \$10,000; directors, J. C. Jonas, R. V. Downing, Roy C. Smith and L. J. Edwards, all of Norman.

Okla., Colbert.—The First National Bank of Colbert, which is a conversion of the Colbert State Bank, is chartered; capital \$25,000; organizers, W. H. McCauley, A. N. Lee-croft, G. G. Murray, R. L. Murray, Don Callus and Tom Hamilton of Colbert; Jas. R. and B. A. McKinley of Durant, Okla.; Hugh Halsell of Dallas, Tex., and A. B. Scarborough, Bonham, Tex. Business began May 7.

S. C., Bennettsville.—The Farmers' Bond & Trust Co., chartered and incorporated; capital \$25,000. Business is to begin June 1. A. L. Hamer, president and treasurer, and T. M. Hamer, vice-president and secretary.

S. C., Coward.—A new bank is to be established, it is reported, by Zolly C. Lynch.

S. C., Gaffney.—The Insurance Trust Co. will begin business June 1 with C. M. Smith president, J. N. Lipscomb vice-president, and D. A. Brockenton treasurer and manager; capital \$5000.

Tenn., Knoxville.—The Union National Bank, which is a conversion of the Union Bank, has been granted a charter; capital \$200,000. H. M. Johnston is president and W. O. Whittle, cashier.

Tenn., Knoxville.—The Union National Bank of Knoxville is chartered; capital \$200,000; H. M. Johnston, president, and W. O. Whittle, cashier. This is a conversion of the Union Bank of Knoxville.

Tenn., Lexington.—The National Finance Co., capital \$50,000, is incorporated by C. E. Dexter, F. M. Spiller, H. D. Barry, L. P. Rifeard and W. G. Hearn.

Tenn., Memphis.—A new bank, capitalized at \$50,000, to be located at 225 Lemore Ave., is being organized by citizens of South Memphis. C. E. Duvall and T. C. Acklen are interested.

Tenn., Murfreesboro.—The Citizens' Trust Co., chartered with \$75,000 capital, will begin business about July 1 or 15; incorporators, Alden Hale, J. L. Parker, G. B. Giltner, Ed W. Hooper and J. M. Naylor.

Tex., Bettie.—The First State Bank is chartered; capital \$10,000; incorporators, J. B. Fannin, L. W. Holmes and J. D. Robertson.

Tex., Crawford.—The First National Bank is chartered; capital \$30,000; M. Marks is president; J. M. Washam, cashier. This is a conversion of the First State Bank of Crawford.

Tex., Dallas.—The Southwestern Trust Co.

[For Additional Financial News, See Pages 90 and 91.]

Merchants-Mechanics National Bank

South and Water Sts., BALTIMORE, MD.

DOUGLAS H. THOMAS, President.
JNO. B. RAMSAY, V.-P. and Chm. Bd. of Dir.
WM INGLE, Vice-President.
JOHN B. H. DUNN, Cashier.Capital \$2,000,000 Deposits \$21,670,000
Surplus and Profits \$2,175,000

Accounts of Banks, Bankers, Corporations and Individuals solicited.

We invite correspondence.

The First National Bank

OF KEY WEST, FLA.

United States Depository and Disbursing Agent
Capital \$100,000
Surplus and Undivided Profits - - 40,000A general banking business transacted.
Special attention given to collections.**INVESTMENT SECURITIES**Southern Stocks and Bonds
Municipal and Corporation
Cotton Mill Stock a Specialty

WM. S. GLENN, Broker, SPARTANBURG, S. C.

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale.

Delaware Trust Company

Wilmington, Delaware

INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations. BANKING AND TRUST department gives special attention to out of town customers' accounts.

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CAPITAL AND SURPLUS \$11,000,000

Assists in reorganization of essentially sound but over-extended enterprises.

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CHICAGO
First National Bank Bldg.

H. B. Wilcox, Pres. Blanchard Randall, V.-Pres.

Wm. S. Hammond, Cashier

Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

The First National Bank

17 South St., Baltimore, Md.

Capital - - - \$1,000,000
Surplus and Net Profits - - 400,000
Deposits - - - 6,500,000

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The National Exchange Bank

OF BALTIMORE, MD.

Hopkins Place, German and Liberty Streets
Capital, \$1,000,000

July 15th, 1908, Surplus and Profits, \$671,631.60

OFFICERS

WALDO NEWCOMER, President.
SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.

Accounts of Mercantile Firms, Corporations, Banks Bankers and Individuals Invited.

SURETY BONDS**Fidelity & Deposit Co.**

OF MARYLAND

Home Office, - - BALTIMORE, MD.

Total Assets Dec. 31, 1911,

\$8,133,000.57

Pioneer Surety Co. of the South.

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SOUTHERN STATES DEVELOPMENT CO.
(Brokers) GEO. B. EDWARDS, Pres.
Tribune Building, NEW YORK, N. Y.
Negotiations, Investigations, Settlements, Purchases of Property, Information.**Palmetto National Bank**

COLUMBIA, S. C.

Capital \$250,000.00

Deposits \$2,700,000.00

Surplus and Profits \$150,000.00

WILIE JONES, President
JOHN JACOB SEIBELS, Vice-President
THOMAS TAYLOR, 2nd Vice-PresidentJ. P. MATTHEWS, Cashier
WM. M. GIBBS, Jr., Asst. Cashier
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JOHN KÜCHLER, C. P. A., Vice-President.ELMER L. HATTER, C. P. A., Treasurer
ERNEST E. WOODEN, C. P. A., Secretary**BALTIMORE AUDIT COMPANY**1027-1033 Calvert Building BALTIMORE, MD
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NEWPORT NEWS, VA.28 YEARS' ACTIVE SERVICE
STATE, CITY AND CORPORATION FINANCING
Entire Issues Bought and Sold**Mercantile Trust & Deposit Company OF BALTIMORE**Capital - - - - \$1,500,000
Surplus - - - - \$3,000,000Thoroughly organized to exercise all Banking and Trust Company functions.
Correspondent for Banks and Trust Companies.

A. H. S. POST - - President

has applied for charter; capital \$50,000; T. A. Frey, president; H. Parson, vice-president; T. Kirby, secretary, and S. F. M. Carragher, treasurer.

Tex., Dallas.—The Citizens' State Bank & Trust Co. chartered; capital \$150,000; has begun business at the corner of Main and Poydras Sts.; R. C. Ayres, president; J. P. Smith, vice-president; J. H. Blocker, cashier; H. M. Walden, assistant cashier.

Tex., Fort Worth.—The Home Mutual Fire Insurance Co. is incorporated by A. P. Mitchell, V. C. Nelson and E. M. Williams.

Tex., Galveston.—The South Texas State Bank is chartered; capital \$100,000; J. P. Alvey, president; E. R. Cheesborough, vice-president; J. Carroll Alvey, assistant cashier, and C. G. Sweet, cashier.

Tex., Newport.—The First State Bank began business April 21; capital \$100,000; C. H. Boedecker, president; W. M. Bransford, vice-president; O. D. Wilkes, cashier.

Tex., Penelope.—The Guaranty State Bank of Penelope is chartered; capital \$20,000; C. W. Holloway, president; L. W. Holloway, cashier; C. Alexander, vice-president.

Tex., Seadrift.—The First State Bank of Seadrift, to succeed the First Bank of Seadrift, is organized with the following directors: W. D. Stevens, president; George P. Hardy, vice-president, and J. Ods Parrish, cashier; J. D. Powers, Jr., R. E. Hill, Dr. H. G. Hertel and J. M. Pickering.

Tex., Sealy.—The Farmers' National Bank is chartered; capital \$25,000; surplus \$2500. Directors: W. F. Vierick, Nax Sailer, H. Muske, W. H. DuBese, Adolph Kveton, F. A. Brune, W. T. Kerr, F. W. Bader, E. L. Gallia, G. W. Buller, West S. Buller, Bernhard Muench, Jos. Kveton and Karl Zaruba. It is stated that Mr. Vierick will be president and Mr. Gallia, cashier.

Va., Lynchburg.—The Citizens' Savings & Loan Corporation, capital \$30,000 to \$300,000, is chartered. David Dreyfuss, president; G. E. Caskie, vice-president; John Victor, secretary and treasurer, all of Lynchburg.

Va., Montross.—Chartered: The People's Bank of Montross, Inc.; capital \$10,000 to \$50,000. R. H. Stuart, president, Stratford, Va.; T. K. Sands, vice-president, Washington, D. C.; J. W. Hutt, secretary and cashier, Montross, Va.

Va., Richmond.—The Public Utility Debenture Corporation is reported incorporated; directors are H. R. Winthrop of Harris, Winthrop & Co.; A. L. Kramer, vice-president of the Equitable Trust Co.; J. F. B. Mitchell, Murray W. Dodge and F. H. Reed and others; William C. Low, Jr., is president.

NEW SECURITIES.

Ala., Dothan.—Voted: \$40,000 of 5 per cent. 20-year city hall bonds; dated July 1, 1913.

Ala., Mobile.—Steps are being taken to call an election to vote on \$150,000 of school bonds.

Ala., Mobile.—Bids will be opened June 26 for \$150,000 of 5 per cent. 20-year Mobile county road bonds. Address Geo. E. Stone, treasurer. Further particulars will be found in the advertising columns.

Ark., Texarkana.—June 30 an election is to be held to vote on \$225,000 of street and bridge improvement and \$60,000 of sewerage 5 per cent. 40-year bonds.

Fla., Clearwater.—Subschool district No. 2 will hold an election to vote on \$10,000 of bonds to settle outstanding indebtedness and to complete and equip school building.

Fla., Jacksonville.—The State Senate has authorized Duval county to issue \$150,000 of bonds for new armory. R. V. Covington is chairman Armory Commission.

Fla., Key West.—City is reported to have sold \$50,000 of 5 per cent. 30-year park site bonds.

Fla., Lakeland.—It is proposed to call an election to vote on \$50,000 of school bonds.

Fla., Passnagville.—Bids were opened on June 2 for \$500 of 6 per cent. fire-protection bonds.

Fla., Panama City.—Bids will be received until noon June 30 for \$25,000 of 6 per cent. bonds. Address C. M. Chandler, Town Clerk.

Fla., St. Petersburg.—Petitions have been made to the County School Board for an

election to vote on \$55,000 of bonds for special school tax district No. 3, Pinellas county.

Fla., Tampa.—Bids will be received until 2 P. M. July 1 for \$500,000 of 5 per cent. 20-year bonds for paving, sewerage, city hall, dock, parks, etc.; denomination \$1000. D. B. McKay is chairman Board of Commissioners of Public Works. Allen Thomas is clerk. Further particulars will be found in the advertising columns.

Fla., Tampa.—June 17 an election will be held in Hillsborough county to vote on the following 6 per cent. school bonds: East Tampa district, \$6000; Buffalo Avenue district, \$20,000; Gary district, \$20,000; denomination \$1000. Marshall Moore is secretary Hillsborough County Board of Public Instruction.

Ga., Albany.—The election to vote on \$100,000 of improvement bonds will be held July 24. J. T. Mannis is City Attorney. (See Manufacturers Record, May 22.)

Ga., Albany.—Dougherty county will vote July 24 on \$80,000 of road and bridge bonds.

Ga., Americus.—J. H. Hillsman & Co., Atlanta, have purchased at par \$35,000 of school and \$10,000 of sewerage 5 per cent. 30-year bonds.

Ga., Royston.—June 10 an election is to be held to vote on \$30,000 of water-works and \$15,000 of sewer bonds.

Ga., Jackson.—An election is to be held to vote on bonds for sewerage.

Ga., Savannah.—September 15 city will vote on \$200,000 of auditorium bonds.

Laurinburg.—Bids will be received until noon June 20 for \$7500 of water, sewer and electric-lighting system bonds. W. D. Tucker is Mayor.

La., Alexandria.—Bids will be received until 2.30 P. M. June 14 by the commissioners. Horseshoe Drainage District No. 1. S. W. Day, president, for \$12,500 of 5 per cent. bonds.

La., Baton Rouge.—Voted: \$225,000 of 4½ per cent. public improvement bonds.

La., Gretna.—Elections are about to be held in the Fourth, Fifth, Seventh, Eighth and Ninth wards of Jefferson parish, the first two comprising District No. 1, and the latter three Road District No. 2, to vote on \$200,000 of 5 per cent. 40-year road bonds.

La., Lafayette.—Voted: \$75,000 of road-construction bonds.

La., Opelousas.—Bids will be received until 11 A. M. June 19 for \$35,000 of 5 per cent. street paving and improvement bonds; dated May 1, 1913; maturity 1915 to 1924, inclusive; denomination \$500. E. L. Loeb is Mayor. Further particulars will be found in the advertising columns.

La., Shreveport.—City Council will receive bids until June 24 for \$101,530 of 4½ per cent. street and sewer bonds. L. H. Baker is secretary.

Md., Annapolis.—Bids will be received until noon July 1 for the following 4 per cent. Maryland State bonds: State Loan of 1912, series E, \$500,000; series F, \$500,000; series G, \$170,000; the Consolidated Loan of 1913, series B, \$200,000; the second Insane Hospital Loan, series B, \$400,000; Maryland State Normal School Loan, series B, \$300,000; dated July 1, 1915. Phillips Lee Golds-

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Built by Hench & Dromgold Co., York, Pa. 5 head blocks, 100 feet track, three Hoe saws. Seen very little use. Cheap.

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Brown-Marx Bldg. Birmingham, Ala.

borough is Governor; Emerson C. Harrington, Comptroller of the Treasury, and Murray Vandiver, Treasurer.

Md., Pocomoke City.—Baker, Watts & Co. of Baltimore have purchased \$35,000 of 5 per cent. 19-29-year street-improvement bonds. E. J. Tull is Mayor.

Miss., Batesville.—John Nuveen & Co., Chicago, Ill., purchased on May 21 at \$510 premium, furnish bonds, etc., \$50,000 of 6 per cent. Panola county bridge and road bonds; denomination \$500. R. W. Draper is clerk.

Miss., Charleston.—On June 2 at noon the Board of Supervisors of Tallahatchie county offered at public sale 6 per cent. bonds of Supervisors District No. 5. W. D. Brown is clerk.

Miss., Fayette.—Jefferson county will soon vote on \$50,000 of First district road bonds.

Miss., Georgetown.—Bids were received until June 3 by D. Mahaffy, City Clerk, for \$7500 of water bonds; interest not exceeding 6 per cent.; denomination \$100 and \$500; dated May 1, 1913; maturity 1914 to 1923.

Miss., Grenada.—Last September Grenada county sold to John Nuveen & Co., Chicago, \$45,000 of 5 per cent. 20-year road and bridge bonds at 102. J. King is Clerk.

Miss., Gulfport.—Voted: \$150,000 of railroad-aids bonds.

Miss., Hickory.—City proposes to issue \$10,000 of school-building bonds.

Mo., Carthage.—L. Hukill, secretary, denies report that bonds for Carthage school district have been voted.

Mo., Joplin.—City Council has voted to sell \$50,000 of viaduct bonds to the following five banks, each bank to receive \$10,000: Conqueror Trust Co., the Cunningham Bank, the Miners' Bank, the First National Bank and the Joplin National Bank.

Mo., Kansas City.—Voted: \$1,750,000 of school building and \$250,000 of library bonds.

N. C., Washington.—Reported that \$500,000 of bonds for drainage of Mattamuskeet Lake, in Hyde county, have been sold.

Mo., Popular Bluff.—Bids were received until 1 P. M. June 2 by J. O. Chambers, Clerk of Butler county, for \$12,000 of 6 per cent. drainage bonds.

N. C., Andrews.—June 10 an election is to be held to vote on \$15,000 of 5½ per cent. Andrews school district, Cherokee county, bonds. J. W. King is chairman Board of County Commissioners.

N. C., Angier.—Voted May 20: \$15,000 of 30-year school-building and equipment bonds; interest not to exceed 6 per cent. Address W. H. Gregory, secretary Board of Trustees Angier School District.

N. C., Franklinton.—The Security Savings Bank & Trust Co., Toledo, has been awarded \$12,000 of 6 per cent. street-improvement bonds at \$76 premium.

N. C., Franklin.—Bids will be received until 10 A. M. June 28 by J. G. Siler, secretary Highway Commission of Franklin county, for \$80,000 of 5 per cent. 30-year road bonds.

N. C., Greenville.—Greenville township, Pitt county, will vote July 29 on \$50,000 of 5 per cent. 40-year road bonds. Brascoe Bell is Clerk.

N. C., Mocksville.—Voted: \$175,000 of Davie county road bonds.

N. C., Lattimore.—Bids will be received until May 31 by the Highway Commissioners of Cleveland county for \$25,000 of 6 per cent. road bonds of Lattimore district.

N. C., Mocksville.—The \$175,000 of Davie county road bonds, which were voted on May 31, are 30-year 5 per cent. Address C. G. Bailey, Advance, N. C.

N. C., Morganton.—Bids will be received until June 14, inclusive, for \$15,000 of 5 per cent. 30-year township road bonds; dated July 1, 1913. Address Hamilton Erwin, secretary Morganton Township Board of Supervisors.

N. C., Raleigh.—Meyer, Deppe & Co., Cin-

cinnati, have purchased at par \$350,000 of 5 per cent. water-works bonds. W. H. Sawyer is clerk.

N. C., Robertsonville.—Bids will be received until 2 P. M. June 20 for \$50,000 6 per cent. 20-year Robertsonville township road bonds. Address A. E. Smith, chairman Board of Road Trustees of Robertsonville Township.

N. C., Rocky Mount.—Voted: \$250,000 of improvement bonds. W. L. Parrott is Mayor.

N. C., Spencer.—Bids will be received until 7 P. M. July 15 for \$50,000 of electric light and water-works and \$10,000 of school 5 per cent. 30-year bonds. D. Fulk is clerk, Board of Aldermen. Further particulars will be found in the advertising columns.

N. C., Valleytown Township, P. O. Murphy, June 2 Valleytown township, Cherokee county, will vote on \$75,000 of railroad-aids bonds. J. W. King is chairman Board of Commissioners Cherokee county.

N. C., Wilkesboro.—Bids will be received until June 20 for \$20,000 of 5 per cent. township railroad construction bonds. Address T. B. Finley, chairman railroad committee. Further particulars will be found in the advertising columns.

N. C., Wilmington.—New Hanover county, including city of Wilmington, has voted \$175,000 of school and \$100,000 of 4½ per cent. 25-year road bonds, for which bids will be asked. Address J. O. Carr.

N. C., Wilson.—City has for sale \$160,000 of light, power-plant and street-improvement bonds.

N. C., Wilson.—An election is to be called to vote on \$20,000 railroad-aids bonds. Address County Commissioners.

Okl., Bartlesville.—June 24 an election is to be held to vote on \$7500 of 5 per cent. 20-year incinerating and garbage disposal plant bonds. C. A. Samm is Mayor and W. W. Jones City Clerk.

Okl., Clinton.—City is reported to have sold \$25,000 of 6 per cent. 25-year hospital bonds.

Okl., Cushing.—The \$15,000 of well-construction bonds recently voted have been sold.

Okl., Watonga.—Voted: \$35,000 of 6 per cent. sewer bonds.

S. C., Jonesville.—June 4 city voted on \$30,000 of 6 per cent. electric-light and water-works bonds. J. T. Scott is Mayor.

S. C., Lancaster.—Voted: Bonds as follows: Sewerage, \$45,000; street improvements, \$15,000; water-works system, \$12,000.

S. C., Orangeburg.—City has voted \$60,000 of water and electric-light bonds. W. M. Sain is Mayor and L. H. Wannamaker clerk and treasurer.

S. C., Newberry.—R. M. Grant & Co., New York, have been awarded at \$601 premium \$49,000 of 5 per cent. 20-year refunding bonds. W. A. McSwain is chairman Board of Commissioners of Newberry County.

Tenn., Charlotte.—The Highway Commissioners for Dickson county, W. H. Neblette, secretary, will take steps to sell \$250,000 of road bonds.

Tenn., Dandridge.—Bids will be received until noon June 24 by Arthur Holtinger, secretary Road Commission of Jefferson county, for \$125,000 of 30-year and \$25,000 of 20-year bridge 5 per cent. bonds.

Tenn., Dresden.—Bids will be received until 1 P. M. June 19 for \$27,000 of 6 per cent. 20-year refunding municipal water and light bonds. R. L. Suddith is Mayor and R. N. Irvin, recorder. Further particulars will be found in the advertising columns.

Tenn., Huntingdon.—July 2 an election is to be held to vote on \$10,000 of bonds for industrial and training school and \$5000 for street improvements.

Tenn., Kenton.—Bids will be received at any time by M. C. Rosson, Mayor, for \$30,000 of 6 per cent. 20-year water and light bonds.

Tenn., Memphis.—Weil, Roth & Co., Cin-

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(Established 1865)

105 So. La Salle Street

CHICAGO, ILLINOIS

cinatti, have purchased at par and accrued interest to the date of delivery \$600,000 of Shelby county road bonds. T. B. King is chairman Shelby County Commission.

Tenn., Nashville.—Breed, Elliott & Harrison and Field & Longstreth of Cincinnati, O., have purchased at 101 the \$30,000 of water-works and \$100,000 of electric light 5 per cent. bonds.

Tenn., Nashville.—June 5 a special election will be held to vote on \$2,500,000 of reservoir bonds.

Tenn., Trenton.—Bids will be received until 7.30 P. M. June 13 by Joe Freed, City Treasurer, for \$25,000 of 5 per cent. 30-year refunding bonds.

Tenn., Union City.—The New First National Bank, Columbus, O., has purchased \$25,500 of street and sidewalk improvement bonds.

Tex., Abilene.—Bids will be received until June 9 for \$150,000 of 5 per cent. 5-40-year Taylor county courthouse bonds. E. M. Overshater is County Judge.

Tex., Austin.—The Attorney-General has approved the following securities: \$15,000 of 5 per cent. 10-40-year Dewitt county common school district No. 40 bonds; \$4000 of 5 per cent. 10-40-year Bowie county common school district No. 18 bonds; \$8500 of 5 per cent. 20-40-year Center independent school district bonds.

Tex., Beeville.—A petition is reported being circulated in Bee county asking that an election be held to vote on \$100,000 of road-improvement bonds.

Tex., Clarksville.—An election is to be held in Clarksville precinct to vote on \$300,000 of 5 per cent. good-roads bonds.

Tex., Com.—Regarding the report that road bonds had been voted, S. W. Hogan, Commissioner, Precinct No. 2, writes: "No bond issue; only a 15-cent special tax."

Tex., Corpus Christi.—An election is to be held in Nueces county the first week in July to vote on \$500,000 of highway improvement and \$250,000 of courthouse and jail bonds.

Tex., Dallas.—\$85,000 of De Soto, Dallas county, school bonds have been approved. Address Thomas E. Henry, superintendent of county schools.

Tex., Decatur.—Voted: \$27,000 of school bonds.

Tex., Fort Worth.—The Commissioners' Court of Tarrant county has called an election for July 19 to vote on \$300,000 of jail bonds; dated 1912; maturing 1952; optional after 1922.

Tex., Fort Worth.—Steps are reported being taken to issue \$175,000 of school bonds recently voted. George C. Clarke is member of the school board.

Tex., Goldthwaite.—Reported that \$15,000 of 5 per cent. 5-40-year independent school district bonds were recently voted.

Tex., Groveton.—Bids will be received until 10 A. M. June 23 by C. M. McKinnon, judge of Trinity county, for \$60,000 of 5 per cent. 10-20-year road bonds of District No. 1; denomination \$3000; dated February 13, 1913.

Tex., Hillsboro.—June 27 an election is to be held to vote on \$25,000 of 5 per cent. 15-40-year water-works and sewerage bonds. M. W. Lovell is Mayor.

Tex., Kerrville.—Kerr county has voted \$40,000 of road bonds.

Tex., Mart.—June 23 city will vote on street bonds. Address City Commissioners.

Tex., Moscow.—Good-roads bonds are reported voted.

Tex., Ore City.—June 21 Ore City independent school district will vote on \$8000 of school-building bonds.

Tex., Paducah.—Precinct No. 1, Cottle county, will vote on \$50,000 of road bonds.

Tex., Plainview.—Bids will be received until 8.30 P. M. July 1 for \$10,000 of sewer and water extension and \$10,000 of street improvement 5 per cent. 20-40-year bonds. Address J. L. Dorsett, Mayor. Further particulars will be found in the advertising columns.

Tex., Sanger.—Sanger Precinct, Denton county, proposes to call an election to vote on \$125,000 of road bonds.

Tex., San Antonio.—It is probable that \$3,500,000 of improvement bonds will be issued. Clinton G. Brown is Mayor-elect.

Tex., Spur.—Voted: \$25,000 of water-works bonds.

Tex., Temple.—Bids will be received until 5 P. M. June 10 for \$75,000 of 5 per cent. 20-40-year sewer bonds; denomination \$1000; dated May 15, 1913. J. B. Waters is Mayor and T. W. Stephens City Secretary.

Tex., Tolar.—The \$12,000 of school bonds to be voted on June 21 are 40-year 5 per cents.

Tex., Weatherford.—City is reported offer-

ing for sale \$4000 of street-improvement bonds.

Tex., Willis Point.—Water-works bonds are reported voted.

Va., Accomac.—Bids will be received until 3 P. M. June 9 by John D. Grant, Jr., clerk Board of Supervisors of Accomac county, for \$10,000 of 30-year bonds; denomination \$100.

W. Va., Elkins.—Voted: \$30,000 of school bonds.

W. Va., Huntington.—Voted: \$130,000 of paving-sewer and \$30,000 of incinerator bonds.

W. Va., New Haven.—Defeated: \$10,000 of 5 per cent. 10-34-year Graham district school bonds. S. Y. Rickard is secretary Board of Education.

W. Va., Paw Paw.—The \$10,000 of Cacapon District School bonds have been purchased by J. S. Zimmerman, W. V. Giles, Meade Bowers and the First National Bank of Romney at a fraction over \$1.04.

W. Va., Sistersville.—June 13 an election is to be held to vote on \$25,000 of improvement bonds.

W. Va., Wheeling.—Reported defeated: \$18,000 of Fulton school bonds.

FINANCIAL NOTES.

The American Exchange National Bank, Dallas, Tex., has increased its capital to \$1,500,000, and the surplus fund to \$1,000,000. Royal A. Ferris is president and Nathan Adams cashier.

At the annual convention of the Mississippi Bankers' Association, held at Vicksburg, May 20 and 21, the following officers were elected for the ensuing year: J. F. Flournoy of Canton, president; Henry Hart of Winona, vice-president; I. J. High of Tupelo, chairman of the executive committee.

At the annual meeting of the Texas Bankers' Association, held at Galveston, May 13, 14 and 15, the following officers were elected for the ensuing year: President, Nathan Adams, cashier of the American Exchange National of Dallas; secretary, J. W. Hoopes, cashier of the City National of Galveston; assistant secretary, Miss Lydia Littman, Austin; treasurer, T. B. Benson, president of the Bartlett National of Bartlett; district vice-presidents, district No. 1, J. O. Sims, Orange; district No. 2, George B. Clark, Corpus Christi; district No. 3, C. L. Wilkins, Brenham; district No. 4, L. B. Newhiny, Holland; district No. 5, J. T. McCarthy, Tyler; district No. 6, L. M. Dumas, Coleman; district No. 7, T. E. Powell, Balrd.

The Effect of Water Transportation on Railroad Rates.

Chamber of Commerce,
Albany, Ga.

Editor Manufacturers Record:

Did you ever stop to think how few of the largest cities mentioned in history were located inland—away from the sea or some navigable river? You can almost count them on the fingers of one hand. Even today, with our exceedingly efficient rail transportation, the large cities are seaports, or can readily reach the sea by means of some waterway. The reason for the development of cities having access to open waterways is, of course, that water transportation is and always has been the most economical method of moving property from one point to another.

The Southeastern States have much to be thankful for in their long coast line and many large rivers and fine harbors. It would almost seem that the advance of prosperity in the South has been coincident with the advance in methods of handling freight by water.

It may be astonishing to the lay mind to know that much of the rice used in the Southeast moves by steamer from Galveston and New Orleans to New York and then to Savannah or Jacksonville over another water line; that canned salmon from the Columbia River and dried and canned fruits from Southern California moves by water to the Isthmus of Tehuantepec, across the Isthmus by rail, is there transhipped to New York, then brought back to Charleston, Savannah or Jacksonville, and sent by rail to the interior cities, all cheaper than it can

be carried across the continent by rail.

But the effect of water rates does not end at the port. Their influence is felt all through the interior, not only on freight carried by water and then to destination by rail, but also on freight that moves entirely by rail. For instance, the coastwise steamers plying between Boston, New York, Philadelphia and Baltimore on the north, and Norfolk, Charleston, Savannah and Jacksonville on the south, long ago made rates at which they could carry freight destined to interior points, such as Columbia, Atlanta, Macon, Albany, Chattanooga and Montgomery. When the railroads extended their rails from the eastern port cities to these Southeastern interior points they found they could not charge higher rates, or at least rates very much higher, than those fixed by the steamer lines. If they did, the steamers would get all the business.

It would be hard to estimate just how high the rail rates would be if it were not for the low rates charged by the coastwise water lines. Just as the water rates keep down the rail rates into the Southeast from the manufacturing States on the North Atlantic seaboard, so do they, in a different way, tend to reduce the rates from the west. The rail lines that reach into the Southeast—from the Ohio and Mississippi River crossings are strong competitors of those from the East. The merchants in Louisville, Cincinnati, Memphis and St. Louis wanted to do business in Georgia, Florida and Alabama. It was therefore necessary for them to have rates that would enable them to compete with the merchants of New York, Philadelphia and Baltimore to the same territory. This competition led to the making of rates from the West nearly on a par with the water-controlled rates from the East. Taking Macon, Ga., as a representative point in the Southeast, the adjustment of rates is about like this:

Class Rates to Macon, Ga., in Cents per 100 Lbs.		1	2	3	4	5	6
From							
New York (rail and water).....	102	91	81	66	55	43	
New York, all rail.....	117	103	92	74	62	49	
Cincinnati.....	103	90	81	65	54	43	
St. Louis.....	126	109	98	77	64	51	
New Orleans.....	99	86	77	61	50	36	

It will be noticed that the rates from New York by rail and water and from Cincinnati by rail are nearly identical, showing clearly the effect of water transportation over rates between points far from the sea.

Rail rates from the South Atlantic ports of Charleston, Savannah, Brunswick and Jacksonville to cities located at the head of navigation of the various rivers flowing into the South Atlantic show the effect of water competition even though very little freight actually moves on the river. A good example of this influence is in the rates from Savannah to Augusta:

To	Distance in miles.	Class rates from Savannah.					
		1	2	3	4	5	6
Augusta, Ga.....	150	46	37	28	23	17	17
Waynesboro, Ga. 96		76	63	52	44	36	31
Sylvania, Ga.....	87	94	83	72	62	53	43

Augusta is on the Savannah River, 150 miles from Savannah, and has a first-class rate of .46 per 100 pounds, while Waynesboro and Sylvania, directly intermediate, but not located on the river, have much higher rates.

Another example is found in the rates from Brunswick to cities at the fall line of the Ocmulgee and Oconee rivers:

To	Distance in miles.	Class rates from Brunswick.					
		1	2	3	4	5	6
Macon, Ga.....	187	63	56	48	40	34	28
Milledgeville.....	220						
Dublin.....	172						
Empire.....	143	75	63	56	44	35	29
Eastman.....	130	68	58	51	41	33	26
Jesup.....	40	74	63	55	44	35	26

The railroad rates to Macon, Milledgeville and Dublin come in contact with

actual or potential river competition, while those to the intermediate points of Empire, Eastman and Jesup do not.

The above comparative tables show the reduced rates for which the rivers are directly responsible, but the water influence goes further. The rates were made low between Brunswick and Macon and Augusta and Savannah to meet river competition, and then the same rates were applied to business moving to those points from the other South Atlantic ports, so the rates to Macon and Augusta and many other points similarly located are the same from Charleston, Beaufort, Port Royal, Savannah and Brunswick, thus bringing into play the indirect force of water competition.

The rates from Jacksonville, Fla., to Tampa are much lower than to some intermediate points in Florida. There is no actual water transportation from Jacksonville to Tampa, but there is competition between water lines from New York to Tampa direct and others reaching Tampa by way of Jacksonville and rail beyond. The rail rate Jacksonville to Tampa thus becomes the inland proportion of a through rail and water rate New York to Tampa, and as such is very strongly influenced by water competition which does not extend to the intermediate points.

These are only a very few examples of the many thousand rail rates that reveal the direct or indirect effect of water transportation. If necessary, it might be shown that the rates from New York to Chicago, and therefore to points west of the Missouri River, rates to which are made by combination on Chicago, are influenced by water transportation on the Great Lakes, even though all the boat lines on the lakes are owned by the competing railroads; that the rates from New York and Chicago to the Pacific Coast ports of Seattle, San Francisco and Los Angeles are controlled by rates made by steamers operating to the Isthmus of Tehuantepec, the Isthmus of Panama and around Cape Horn; that the rates from the Eastern States to Texas feel the effect of ocean rates to Galveston; that the rates on grain from Duluth to Liverpool bear a definite relation to rates on wheat from the Argentine Republic to European ports. In fact, there is hardly a rate ever fixed but water competition somewhere is a factor in its making. But sufficient illustrations have been given to show the economic necessity of keeping open and making use of any natural waterway on which a city is fortunate enough to be located. The city so located can feel that its commercial prosperity is assured and that its merchants will never feel the burden of unjust freight rates so long as its waterways are kept in good condition.

It is doubtful if the pioneers realized when they laid the foundations of New York, Chicago, Montreal, St. Louis, New Orleans and San Francisco the splendid development that would one day come to their little settlements because their ships could sail the seas and navigate the rivers without let or hindrance, but we of this generation know the value of open waterways, and, knowing, it is to be hoped that not one of us will stand idly by and see our rivers closed by neglect, or our canals disappear through disuse, or our seaboard waterfront absorbed by private corporations for their own ends.

JAMES F. PHILLIPS,
Traffic Manager.

The Commercial Club of Orange, Tex., is circulating a folder, handsomely illustrated, calling the attention of agriculturists to the attractive features of its vicinity.

INDUSTRIAL NEWS OF INTEREST

Franz Safe & Lock Co.'s Contract.

The contract for the steel-lined vaults, burglar-proof money chests, deposit boxes, etc., for the Polk County National Bank at Bartow, Fla., was secured by the Franz Safe & Lock Co. of Jacksonville, Fla., which is carrying out the requirements amounting to approximately \$15,000.

Opens Memphis Office.

A branch office has been established in the Randolph Bldg., Memphis, Tenn., by the Solomon-Norcross Company of Watervliet, N. Y., and Atlanta, Ga., with H. A. Mentz as engineer in charge. This company is carrying on an extensive amount of work as consulting engineer in the South.

Southwark Foundry & Machine Co.

John S. Albert, of the engineering department of the Southwark Foundry & Machine Co., Philadelphia, has been appointed Pittsburgh representative with offices in the Frick Bldg. Mr. Albert takes the place of Karl Nibecker, who has resigned in order to take the position of engineer with the Youngstown Sheet & Tube Co., Youngstown, Ohio.

The Raleigh Iron Works Co.

In addition to the construction of its patented stake and unloading device for logging cars, the Raleigh Iron Works Co. of Raleigh, N. C., carries on general electric repairs, light and power wiring, installation of motors, burglar alarms; installs steam and hot-water heating systems; deals in machinery and mill supplies, railroad equipment, house and mill castings, structural steel, etc., and does extensive iron and brass foundry work. The company is also agent for various lines of incandescent lamps.

Dugan Engineering Co.

The Dugan Engineering Co., Equitable Bldg., Louisville, Ky., has recently been incorporated with C. M. Dugan, Jr., president. Mr. Dugan was for a number of years general manager for the Kosmos Portland Cement Co., Kosmosdale, Ky. The Dugan company acts as consulting and construction engineer, and specializes in the design and reconstruction of cement plants, quarry plants, power plants, etc. It now has the

contract for the construction of the new plant of the Kosmos Portland Cement Co. at Kosmosdale.

Completed Contracts for the Rice Institute.

Contracts amounting to \$200,000 have been completed for the Rice Institute, Houston, Tex., by Wilmer Waldo, engineer and contractor of Houston. The contracts include 24,000 feet of storm drains, 4700 feet of sanitary sewers with disposal plant, 35,000 feet of drain tile, 38,000 cubic yards of grade work, 2½ miles of roadway, and distribution tunnels for service between the power station and other buildings; also two athletic fields and other miscellaneous construction. This work was both designed and constructed by Mr. Waldo.

G. Worthen Agee, Analytical Chemist

In order to increase his laboratory facilities for handling the growing volume of business, G. Worthen Agee, analytical chemist, 2632 S. 2d St., Memphis, Tenn., has added considerable space to his former laboratory-rooms, and has also increased the equipment. Numerous purchases of instruments in the past few months enable him to give thorough attention to the details of subjects presented to him for consideration. He is acting as consulting chemist for a number of cottonseed-oil mills, and is giving attention to fertilizers and feeds. He also makes analyses of water for boilers and of fuels, and makes tests of cements.

Artificial Ice Plants.

The increasing proportion of the ice supply which is required to be furnished by artificial-ice machines lends particular interest to the development of manufacturing firms engaged in the making of refrigerating equipment. Within the past few years the Huettnerman & Cramer Company, Detroit, Mich., has built and equipped over 220 large refrigerating plants, 45 ice-making plants, and a number of other industrial plants in which refrigerating machinery is required. Its activities extend throughout the United States, Canada, Mexico and Porto Rico, and beginning with this season it has commenced extending its business to other foreign countries. A force of over 120 men is employed

at the factory, and a number of expert field engineers are engaged in erecting new refrigerating and ice-making plants in various parts of the country. The company states that the present season is the busiest in its history.

W. S. Huntington, Structural Engineer.

Offices have been established in the Security Bldg., Galveston, Tex., by W. S. Huntington, structural engineer and contractor. Mr. Huntington was formerly chief engineer of the Kansas City (Mo.) Structural Steel Co. His services as structural engineer and contractor will be designing and erecting buildings, bridges, conveyor structures, towers and other structural work in Texas and adjacent States, as well as in Latin-American countries. Special attention will be given to intricate work requiring engineering ability and execution.

New General Sales Manager.

W. W. Ramsey has been appointed general sales manager of the J. I. Case Threshing Machine Co. of Racine, Wis. He succeeds C. J. Farney, who becomes assistant treasurer. Mr. Ramsey's service with the company began in 1893 at Nashville, Tenn., from which place he was transferred to Dallas, Tex., as local manager. He was afterwards brought to the home office, where he has occupied various positions up to the present one of general sales manager. F. R. Washburn has been appointed division sales manager to succeed Mr. Ramsey, and Stephen Bull, a direct descendant of one of the founders of the company, has been made assistant secretary.

C. M. Liphart & Co.

Fourteen years ago C. M. Liphart established in Richmond, Va., the Richmond Pattern Works, and in its development added a department for structural steel. The firm name was then changed to the Richmond Pattern & Structural Steel Works, and after

further development to the Richmond Structural Steel Co. In February of this year Mr. Liphart withdrew from the company and organized the firm of C. M. Liphart & Co., manufacturers of structural steel and ornamental iron, with modern, well-equipped shops. The engineering and designing department is located in the Mutual Bldg., Richmond. Castings of various descriptions are furnished by the company, and the company aims to handle large or small contracts promptly.

New Devices for Use of Traction Companies.

Two novel devices have been recently invented which are of interest to traction companies and manufacturers of supplies. One of these devices is an automatic fare-registering step over which passengers may enter a car without registering, but on going out the fare is automatically checked up on the register as now used in the car. It is stated that they can be made in a factory and installed on a car at comparatively small cost. The other device is a transfer pouch to be carried by the conductor of the car, in which pouch a roll of blank paper is placed and from which 600 to 1000 transfers or receipts may be taken. On the face of this transfer the line to which it is to be used is stamped by pressing a button. The exact time of issue is stamped on one end of the transfer, and the receiving conductor cancels the transfer with his time stamp on the other end of the slip, thus showing the time elapsed between issuing and receiving the transfer. A record is automatically kept on the pouch of the number of fares and transfers given. The pouch may be operated independently of the automatic step if so desired. These inventions are also designed to be adaptable to other similar uses, such as for theater admissions, baseball parks, time clocks in factories, etc. Full information may be obtained by addressing W. T. McGowan, Mobile, Ala.

MOTOR VEHICLES AND TRACTORS

Resignation of Rollin W. Hutchinson, Jr.

Rollin W. Hutchinson, Jr., advertising manager of the International Motor Co., Broadway and 57th St., New York, has re-

signed his position. Mr. Hutchinson has had charge of the publicity department of the International Motor Co., and its predecessor, the Saurer Motor Co., since their establishment, and has acquired a wide repu-

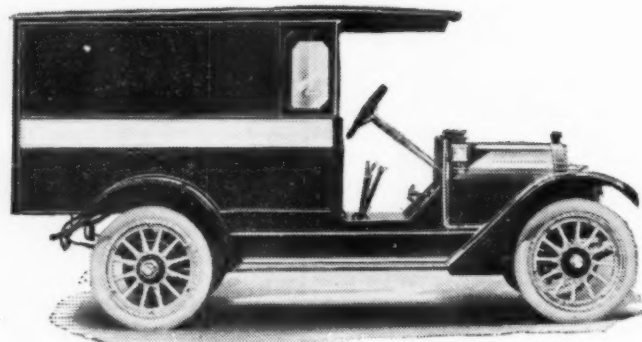
PULLMAN AUTOMOBILES

PALACE CARS OF THE ROAD

In Touring, Toy Tonneau, Roadster and Special Body Types to meet all requirements

36-66 HORSE-POWER, \$1675 to \$2750

Special attention called to our Delivery Wagon



PRICE ON APPLICATION

PULLMAN MOTOR CAR COMPANY

YORK, PA.

tation for his comprehensive articles on motor truck subjects. He is a graduate engineer and an earnest student of mechanical sciences, and his view of the motor industry has been particularly comprehensive. His duties have been taken up by W. H. Flinn of the general sales department of the company.

The Motor-Omnibus in Washington.

The omnibus arranged for prepayment operation, shown in the accompanying illustration, has been built from designs of the

that these vehicles give satisfactory results in cities and in interurban service where paying conditions are not so satisfactory, thus proving that the construction possesses ample stability to withstand severe service. The bottom frames of the omnibus are bolted to the chassis. The frame is securely braced with steel plates and corner irons wherever heavy strains must be withstood. The two-leaf entrance and exit door is under the control of the chauffeur, and an emergency exit door, also under his control, is built in the rear of the bus. The length of

and be properly regulated in temperature and humidity; and in hot weather the washing and cooling of air in large buildings is sometimes desirable. In the winter the same apparatus may be used to add the needed moisture to the otherwise excessively dry atmosphere. The Spray Engineering Co., 201 Devonshire St., Boston, in bulletin No. 51, presents illustrations and descriptions of spray nozzles and other equipment required in air washing and cooling. The company manufactures spray equipment for oil burners, cooling water, for spraying asphalt and other road binders, irrigating orchards, fertilizing soil, humidifying air, settling dust, condensing fumes, for park sprinkling and other purposes. When desired the company will prepare designs and superintend the construction of complete plants in which its equipment is used.

Weber Conform Chimneys.

The methods of constructing Weber conform chimneys, including the unit forms used, are illustrated and described in a comprehensive pamphlet recently issued by the Weber Chimney Co., McCormick Bldg., Chicago, with sales offices in various cities, including St. Louis, Kansas City, New Orleans, Atlanta and Dallas. On account of the large volume of business handled by the company, it is stated that the type of construction has been standardized for most purposes in the Weber conform chimney, made of concrete and steel. A number of notable instances in which cyclones have injured buildings in which the Weber chimneys were not affected are noted in the pamphlet, including some in the recent cyclones at Omaha, Neb., and Council Bluffs, Ia. A long list of users of Weber chimneys in various States and foreign countries is included. The pamphlet will be sent to interested persons on request.

Cranes in Lumber Industry.

The use of cranes to reduce the expense and increase the efficiency of work relating to the handling of lumber in the woods, around the mill or in the lumber yard has

been extensively developed by the Industrial Works, Bay City, Mich. In bulletin No. 211 it is stated that its cranes are used by many leading lumber companies for piling logs and lumber, to load cars, vessels, wagons, etc., and for other heavy lifting. They are self-propelled and will switch loaded cars. The dipper arm attachment can be used to excavate in railroad work and at the same time assist in handling the ties, rails, etc., and they may also be used in connection with steam hammers, pile drivers, etc. These cranes are made in capacities of from 5 to 150 tons, steam or electric operated. A number of illustrations showing the cranes in actual use are included in the bulletin. The Geo. M. Newhall Engineering Co., Philadelphia, is an agent for the sales of Industrial Works' products.

Bishopric Stucco and Plaster Board.

A stucco and plaster board has been developed and tested by the Mastie Wall Board & Roofing Co. of Cincinnati, O., as patented by Allison Bishopric, president and general manager of the company. By the use of this stucco and plaster board no metal laths are required, the necessary background being provided by the boards, which are formed of laths embedded in asphalt mastic. These boards are nailed to the studing and the beveled shape of the laths forms a key which holds the stucco and plaster firmly to the asphalt mastic backing. It is stated that the use of this material gives a strong background for cement, which is moisture proof, and also with the cement forms a non-conductor of heat. As a result of these qualities dampness is prevented, and buildings are protected from heat and cold. It is stated that they are economical in cost and require a minimum amount of cement to give proper walls. The board is made in sheets four feet square, ready to be nailed to the bare studing, thus making the walls ready for cement or plaster. The company has issued a folder illustrating and describing Bishopric stucco and plaster board, and showing various forms of residences and other buildings constructed with it.



MACK TRUCK WITH OMNIBUS BODY.

J. G. Brill Company, Philadelphia, and is mounted on 2½-ton Mack chassis, manufactured by the International Motor Co., Broadway and 57th St., New York. Six of these omnibuses have been placed in use by the Metropolitan Coach Co., Washington, D. C., and their growing popularity indicates the wide field for such vehicles in the cities of the South. The well-paved streets of Washington make it especially adaptable for motor-bus lines; but it has also been found

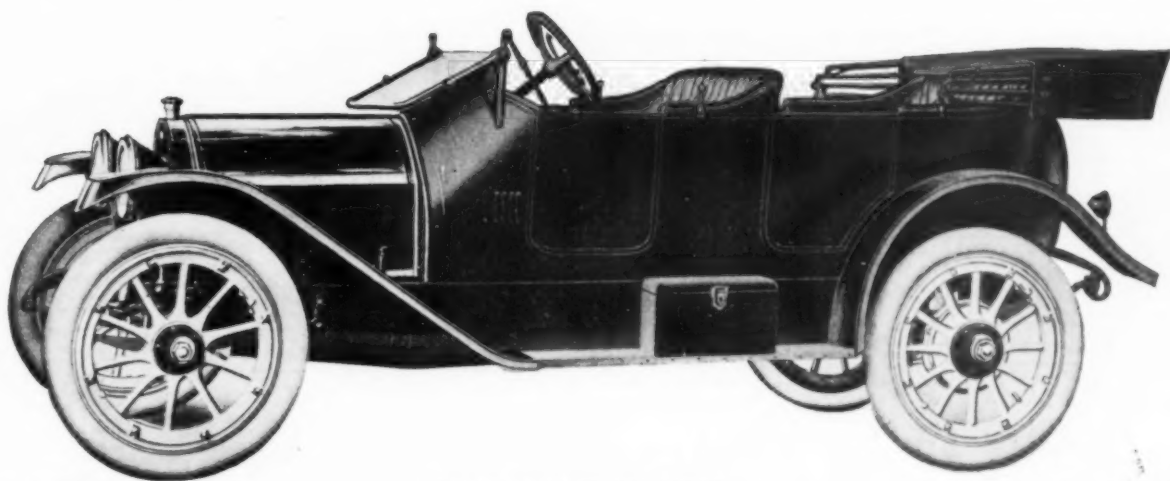
the body is 14 feet 10 inches; width, 7 feet 6 inches; wheel base, 13 feet 6 inches; diameter of wheels, 36 inches; weight of body, 2940 pounds; weight of chassis, 4380 pounds.

TRADE LITERATURE.

Spray Engineering Co.'s Air Washer.

Certain industries require that air for ventilation be thoroughly cleansed from dust

A 40-Horse Power Kline Kar at \$1985



**KLINE
KAR**

Model 4-40—Price \$1985

The Most Remarkable Car in the Field Today
at Anywhere Near the Price

**KLINE
KAR**

ELECTRIC STARTING AND LIGHTING—FOUR-SPEED FORWARD TRANSMISSION

In announcing Series A-1 to the public the Kline Motor Car Corporation takes pardonable pride. We know we are revolutionizing the forty-horse power field, and are only enabled to do so by virtue of our increased production. IN ADDITION to the FORTY, we have three other models at prices which make them decidedly attractive—

MODEL 4-30, Four Cylinder, Thirty Horse Power, \$1750

MODEL 6-50, Six Cylinder, Fifty Horse Power, \$2585

MODEL 6-60, Six Cylinder, Sixty Horse Power, \$3500

There is one quality—THE BEST—in all models, the price varying with the size and horse power.

Desirable Territory Open. Write for Agent's Proposition. Catalog.

Kline Motor Car Corporation

RICHMOND, VA.

Main Office and Factory, RICHMOND, VA.

YORK, PA.

Classified Opportunities

MEN WANTED

WANTED—High-grade specialty salesmen to sell latest patented sanitary device, with territory rights. One salesman sold 2300 in 60 days. Liberal commission and good territory to right man with experience. None others need apply. Simplex Container Co., Inc., Mobile, Ala., Box 618.

WANTED—Superintendent for chilled plow factory; must be sober, and competent in all departments. Send reference with application. Universal Plow Co., Florence, S. C.

AGENCIES WANTED

GERMANY.—To represent manufacturers in Germany. Address H. Drawe & Co., Agents, Frankfurt-on-the-Main, Germany.

REAL ESTATE and building company recently organized in Richmond, with \$25,000 capital, desires the agency for some strong insurance company. Address No. 1290, care Manufacturers Record.

WANTED—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

SALESMAN with 12 years' experience traveling Honolulu, Japan, China, Philippine Islands, Ceylon, India, South Africa, Australia, Tasmania and New Zealand, desires to represent a large manufacturing concern either on salary or commission; only first-class concerns need answer; all correspondence confidential. Address No. 1293, care Manufacturers Record.

SITUATIONS WANTED

AN OIL-MILL SUPERINTENDENT of 15 years' experience wishes to change position. Best of references given. Address No. 1264, care Manufacturers Record.

KEROSENE ENGINES.—A first-class machinist and toolmaker, 11 years foreman, exceptional experience internal combustion engines, would like to connect with firm planning to build or adding oil engines, to present line. Address No. 1288, care Manufacturers Record.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical and Electrical Engineering and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

CHEMISTS

THOROUGHLY equipped to handle the chemical and bacteriological problems of manufacturers; service and satisfaction. The Holtzendorf Laboratories, Memphis Trust Bldg., Memphis, Tenn.

TYPEWRITERS

\$37.50—ROYAL TYPEWRITER, REBUILT LIKE NEW.—Send for special bargain list of used machines taken in exchange for rebuilts. R. J. Nicholson, 41 St. Paul St., Baltimore, Md.

TYPEWRITER SUPPLIES

HIGHEST QUALITY TYPEWRITER SUPPLIES.—Exclusively oil carbon and mineral coloring matter used in manufacture of carbon paper, which enables us to guarantee absolutely clean work and permanent copies. Our ribbons are made of imported silk, giving much additional strength. They are guaranteed non-filling and long wearing. Address A. Sylvester Edmunds, care of American Ribbon & Carbon Co., 239 Shackelford Building, Athens, Ga. Please mention Manufacturers Record in writing.

CAPITAL WANTED

A BUSINESS PROPOSITION.—We are making a successful up-to-the-minute car, which has stood the test of years. Need more capital than can be had locally. Can you furnish it? If interested, write at once. Address No. 1292, care Manufacturers Record.

A GOING CONCERN, owning its plant and doing a manufacturing, general machine shop, foundry and contract business, best location in South Atlantic States, fine prospects, plenty of work not easily affected by outside conditions, wants \$20,000 active working capital; terms to be arranged. Don't write unless genuinely interested and have the money. Address No. 1239, care Manufacturers Record.

BUSINESS OPPORTUNITIES

COW PEA HULLER. CORRESPONDENCE SOLICITED. I want to make connection with good parties in the South to introduce a new, complete, successful cow pea huller. R. P. Scott, care Sinclair-Scott Co., Baltimore, Md.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

LIBERAL INDUCEMENTS to man of reputation and practical knowledge of car-wheel industry to join oldest manufacturer in the South. Rare opportunity. Investigate thoroughly. References exchanged. Box 202, Birmingham, Alabama.

LOCATION WANTED.—With my services have from \$3000 to \$5000 to invest in a going legitimate proposition with a future; South preferred; have made success in mining and manufacturing, and any proposition offered must bear investigation. Address No. 1270, care Manufacturers Record.

HOTEL PROPOSAL.—The Chamber of Commerce of the town of Clearwater offers a bonus of 10 per cent. of the cost of a first-class modern hotel, not to exceed one hundred thousand dollars cost. Write for further particulars. Evan H. Jones, Secretary, Clearwater, Fla.

BEST TOWN Southeast Georgia for hardware store. Millen Hotel Co., Millen, Ga.

WANTED—Experienced building contractor to buy \$4000 of stock in incorporated company and take management at good salary; have just started good job; lots of work to figure; pay \$1000 cash; balance, terms; sickness cause of selling; located in best city in Texas. Address No. 1286, care Manufacturers Record.

FOR SALE—Stock in strong trust company in Virginia; safe, profitable investment. Address Virginia Broker, Box 800, Richmond, Va.

CHOICE INVESTMENT. Net profit of \$2,000,000 to \$3,000,000 available on a safe and sound investment requiring comparatively small outlay. Involves the development of a body of rich farming land. Will stand strictest investigation. Opportunity of a lifetime. Address No. 1291, care Manufacturers Record.

WANTED—Party with fifteen or twenty thousand dollars to join in operating (and ultimately buying) 1000 acres iron-ore lands (brown ore) three miles from and connected with trunk line by short line recently built; money needed for washers and other improvements; can secure large orders as soon as improvements are made at inviting profit; excellent opportunity for right party. 20,000 to 30,000 tons already shipped to furnaces. Closest scrutiny invited and best references. J. M. Chilton, Montgomery, Ala.

GREAT BARGAIN.—It is a rare chance one gets to buy an established business, one that is running daily and making money. I have three manufacturing plants and two farms for sale. All money-makers. Good reasons will be given for selling. Unless you mean business, don't write. Jonathan Havens, Washington, N. C.

A VALUABLE patented car equipment is now ready for market and needs location and capital for the manufacture of same; will consider proposition from reliable firms to manufacture it on contract or royalty basis. Orders are now coming in and must have better facilities to fill them promptly. For full particulars and information write P. O. Box 89, Cumberland, Md.

WANTED—To get in touch with firm to supply theater and motion-picture supplies, including films, chairs, machine, stage scenery and electrical supplies. The New Theater, Inc., Washington, North Carolina.

GOOD INVESTMENT.—For Sale—Up to one-half interest in the capital stock of a nine-year-old corporation with valuable agency contracts in building material business, located in one of the largest cities in Texas. Position with good salary to man of judgment and ability. Must stand rigid investigation. Complete information by return mail. Address No. 1284, care Manufacturers Record.

WANTED—Information from manufacturers as to prices, etc., of spoke and handle machinery, and machinery for turning all kinds of hardwood parts usually made in such a plant. Also want prices on equipping drykiln. Address Box 983, Charlotte, N. C.

R. R. TERMINAL AND FACTORY SITE

FOR SALE.—Large acreage near Atlanta, on Southern Railway, desirable for manufacturing. Also large tract in Birmingham suitable for railroad terminal or manufacturing. Cofield Investment Co., Atlanta, Ga.

FACTORY SITES

FOR SALE—At Memphis, Tenn., a magnificent factory site, containing 50 acres, on L. & N. R. R. and Raleigh car line, 45 minutes from Court Square; never overflows; will sell as a whole or part; cash or easy terms. Apply to C. D. McKee, at E. E. E. Shoe Co., Memphis, Tenn.

FOR SALE—The perpetual right to use one of the most desirable manufacturing sites near Richmond; price \$1500. For further particulars regarding this or other desirable manufacturing and warehouse sites in Richmond, Va., and vicinity, address P. A. Green & Co., Room 1101 Virginia Railway & Power Building, Richmond, Virginia.

INDUSTRIES WANTED

CONDENSED MILK PLANT

LAWTON, OKLAHOMA, would like to locate plant to manufacture condensed milk; ideal dairying country; inexhaustible supply of pure mountain spring water at a very low cost; free site, with ample railroad facilities. Address Roy F. Champlin, Secretary, Lawton, Oklahoma.

MISCELLANEOUS

KENOVA, W. VA., offers unsurpassed advantages for manufacturing enterprises—free sites, cheap gas, cheap coal, three trunk-line railroads with belt line and switches, interurban electric line to cities in West Virginia, Kentucky and Ohio; two navigable rivers; various kinds of raw materials easily available; best markets economically reached. Kenova-Huntington Land Co., Huntington, W. Va.

ARE you seeking a factory site or a location for a wholesale or distributing house of any kind to reach the Southern and Southwestern markets? If so, Memphis is the place for you, because it is the geographical center and the gateway of the sections you wish to cover; because "Memphis makes the Rates," having 17 railroads and the Mississippi River, and because she has cheap and abundant raw materials, excellent labor conditions, and is unsurpassed as a residence city. Above all, she has 200,000 wide-awake citizens ready to welcome you and cooperate with you. Address John M. Tuther, Sec'y Business Men's Club, Memphis, Tenn.

INDUSTRIAL PLANTS FOR SALE

STEAM LAUNDRY

FOR SALE—Well-equipped steam laundry in one of the best towns in Oklahoma, population 3000. Price, building and ground, \$7000. Box 606, Tablequah, Okla.

TIMBER ESTIMATOR

WANTED—Banks, trust companies, lumbermen and manufacturers requiring intelligent estimates on standing timber, either hardwood or pine, to address T. O. Price, 4301 Charlotte Avenue, Nashville, Tenn. Reference, Hermitage National Bank.

MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

TIMBER TRACTS, Coal Lands, Ranches, Farms, etc., anywhere, bought, sold, exchanged. Write Chas. Philidus, 388 Pleasant Ave., New York.

GOOD FLORIDA LANDS.—Deal direct with owners. If you want good, well-located lands, either small or large tracts, or desirable city property, we have bargains to offer you. D. F. Conoley, 400 Zack St., Tampa, Fla.

TWENTY-FIVE THOUSAND ACRES of land in the Shenandoah Valley of Virginia, seven miles long and six miles wide, approximately. A river winds its way through this property for 20 miles, affording about 5000 acres of fine pasture land. A trunk-line of a railroad runs through the full length of the tract. Price \$3 per acre on account of forced sale under peculiar conditions, which will be disclosed upon application of responsible parties to T. R. J. Campbell & Co., 214 Corcoran Building, Washington, D. C.

FOR SALE—10½ acres; fronts most fashionable neighborhood in Shreveport; ideally located for factory in rear, being on railway. Write for prices and terms. D. P. Eubank Realty Co., 607-8 Commercial Nat'l Bank Bldg., Shreveport, La.

FOR SALE—Duck River water-power and 70 acres; new cedar crib dam, 7 feet fall, susceptible 150-horse-power development; pike road 5 miles out; \$5000; easy terms. Will join a practical man with like amount and develop this power. J. B. Ashton, Columbia, Tenn.

J. E. KESTERSON, Huntington, W. Va. Dealing in coal, oil and timber lands in West Virginia and Kentucky.

ALL KINDS of real estate for sale and good investments in the Sarasota district. Write Harry L. Higel, Sarasota, Florida.

500 ACRES at \$15 per acre in Sumter county, Ga., the Banner County in many respects of the State; good land, good timber; a lime and brick deposit on the place; 15 miles from Americus on good roads; can assure the right party a good investment. Write J. A. Davenport, Americus, Ga.

FOR SALE—Large list of farm, mineral and timber lands in six Southern States. Now is the time to invest in the South while prices are reasonable. Our timber tracts are guaranteed to cut so many thousand feet per acre. If interested, send for literature. Hammonds Colonization Realty Co., Room 20 Watts Building, Birmingham, Ala., Major W. A. Hammond.

INVESTMENT OPPORTUNITIES—STATE OF GEORGIA.—Large and small farms, timber and colonization lands, city realty, homes and general business opportunities of every character in and around the City of Macon, Georgia, and the State at large.

We negotiate exchanges in city properties, any State, for farm, timber and colonization lands. We can place long and short loans at attractive rates on first mortgages, and solicit communication with estates, corporations or individuals.

Nothing too large or too small to command our earnest and faithful attention without cost to investors.

For special information and particulars write to F. C. Houser, Mgr. Brokerage and Real Estate Dept., Macon Finance Company, Macon, Ga.

CITY PROPERTIES

IN THE DISTRICT OF COLUMBIA, 100 acres extremely desirable for subdivision, fronting on 16th street and the National Rock Creek Park, at a bargain price. Property immediately adjoining has been subdivided, and in a few months almost \$100,000 worth of lots have been sold at 20 cents to 50 cents a square foot. Full particulars upon request. Robert E. Heater, Colorado Building, Washington, D. C.

CITY AND SUBURBAN PROPERTIES

DO NOT PASS THIS BY: IT'S WORTH YOUR INVESTIGATION—450 acres of good land just outside of the corporate limits of Staunton; magnificent residence with all modern conveniences; lovely lawn of about 10 acres filled with oak and maple trees; 10 acres of timber; an abundance of fruit; large stream of running water through farm. We have hundreds of city and county properties listed. Remember, we are in a delightful climate; no mosquitoes; no malaria; surpassed by none for schools; convenient to churches. Write for further information. R. E. Tyler, Real Estate, 104 West Main street, Staunton, Virginia.

SUBURBAN PROPERTY

FOR SALE OR EXCHANGE—Part income-bearing property; a beautiful suburban home and farm; ideal surroundings. H. B. McKenzie, Prescott, Ark.

LIMESTONE LAND

FOR SALE—As a whole or in part, forty-two acres limestone land lying immediately between two railroads, the suburbs of Hagerstown, Md. Splendid facilities for manufacturing sites. Special inducements offered right parties. Address Bower & Davis, or Board of Trade, Hagerstown, Md.

FOR SALE OR LEASE.—Limestone quarry, crushing plant and limekilns, located in Tennessee on trunk-line railroad; good demand for commercial stone and ballast; about 60 acres in this tract; also store and tenement-house. Address No. 1244, care Manufacturers Record.

PHOSPHATE LANDS

FOR SALE.—One to fifteen millions tons pebble phosphate in quantities to suit the purchaser; a No. 1 mining proposition. Childers, Burton & Smith, Arcadia, Florida.

IRON ORE AND TIMBER LAND

VALUABLE timber and iron-ore tract for sale; 21,680 acres; worth \$1,000,000; can be bought at a sacrifice to present owners; 17,000,000 feet of first-class timber on same; good railroad facilities. Apply to E. R. Massie, Box 545, Clifton Forge, Va.

TIMBER LAND FOR SALE

FOR SALE—About 2000 acres timber, S. C., in a solid body, on two rivers, estimated to cut 30,000,000 feet, with about 40,000 telegraph poles.

About 2000-acre hunting preserve; timber estimated to cut 8,000,000 feet; plenty deer, turkeys, partridges; close to R. R. B. I. Hazard, Georgetown, S. C.

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